When the new criteria were applied, towns that did not meet the minimum standard were transferred to the jurisdiction of communes, resulting in their classification as rural places. Small cities not meeting the State Council's criteria were reclassified as towns and put under the jurisdiction of county governments. The net result was a reduction in the number of towns from 5,404 in the 1953 Census to 3,148 in the 1964 Census. Since the reclassification process evidently had not been completed at the time of the census, some places were still officially identified as towns and included in the urban population in the 1964 Census even though they did not meet the new criteria. The completed reclassification after 1964 yielded fewer than 3,000 towns; at the time of the 1982 Census, only 2,664 towns met the official criteria. Thus, between the 1953 and 1982 censuses, the number of designated towns was reduced by more than 50 percent, from 5,404 to 2,664 places. However, since most of these places were small, the aggregate number living in them probably did not exceed more than a few million and so did not seriously affect comparability with later censuses in the total size of the urban population.

The criteria adopted in 1963 also applied to cities; as a result, some cities were reclassified as towns. The change in the number of cities between 1964 and 1982 was not sharp, however, because the number of cities that were downgraded according to the 1963 criteria was offset by the number of new cities developed in the post-1963 period in response to national planning. By the end of 1982, according to the *1983 Statistical Yearbook* (SSB, 1983a), China had already increased the number of cities from 236 identified in the 1982 Census to 245, and at least 14 new locations were reclassified as cities in 1984 (*People's Daily*, January 20, 1984). The 1964 and 1982 Censuses thus used the same basic criteria for designating places as urban,

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of the total city population lives in the inner city, but this ranges from a high of 66 percent for Beijing to only 53 percent for Shanghai.

Ranking under the three municipalities are those cities directly under the leadership of the provincial government: the 26 capital cities of the provinces and autonomous regions that serve as the political, cultural, and economic centers of the provinces. In 19 of the 26 provinces, the provincial capital city is the largest city in the province; of the 26 provincial capital cities, 19 exceeded 1 million in population in 1982, and of these, seven had more than 2 million. The remaining cities in China, those other than the provincial capitals and the three municipalities, have usually gained size or importance because of their economic function, but occasionally because they serve some other key function in the province.

although the 1964 Census included 484 towns that were later shifted to rural status; it is not possible to determine how many people this involved.

Defining the urban population

Understanding the various criteria used to define the urban population requires recognition of the central role that the household registration system plays in defining an individual's residence status and in controlling permanent migration.

The Registration System and Migration

Each individual in China has an official place of residence, the record of which is maintained at the brigade level in rural areas and at the neighborhood level in urban places by the Public Security Bureau. To effect a permanent change in residence, permission must be granted by the appropriate authorities in the places of origin and destination. Peasants can generally obtain an urban household register in only a limited number of ways. The most prominent are:

1. University enrollment, which carries with it urban household registration, which is then retained.
2. City or industrial expansion into farmlands, which may entitle peasants displaced in the process to urban household registration.
3. Permanent employment in an urban place, which leads to urban registration. In such cases family members of the employee must generally retain their rural household register, even if they in fact live in the city.

Given the close interrelations between the registry system and population movement in China, an individual is considered a permanent migrant only if the move involved a change in household registration. Thus, persons living in cities who are not *de jure* residents of those cities are not counted as part of the city population in any enumeration based on household registers. Nonetheless, a considerable amount of "temporary" movement to urban places exists in China, and such movement is often officially sanctioned. Since *de facto* residents may be substantial in number and selective in their socioeconomic and demographic characteristics, their omission from urban registers and statistics distorts the data on the size and composition of urban places and the data on rural populations at places of origin.

The 1982 Census Qualifications

In partial recognition of this situation, the 1982 Chinese Census identified separately and counted as residents those people who had lived in a given locality for more than one year even though they were registered elsewhere and those who had resided in the locality less than one year but were absent from their place of registration for more than a year.[4] In this respect, the 1982 Census results are not and should not be identical with the register enumerations, despite the heavy reliance on the latter to ensure the complete coverage in the census.

Particular attention was given in the census to the problems inherent in identifying the permanent residence of mobile individuals. For example, people in rural communes and production brigades often went temporarily to another city or county as peddlers or construction workers or for other activities but came back frequently. They were not considered as being away for more than one year and were enumerated in the places of their household registration. Persons involved in activities that required geographic mobility—such as prospecting, transportation and communication, mobile sales of handicrafts and sideline products, and construction—were also enumerated at the place of their household registration to facilitate enumeration and avoid duplication or omission. An indeterminate number of people living in cities without any kind of official sanction may also have reported themselves as temporary urban residents (for less than one year) in order to avoid bureaucratic difficulties; they, too, would have been enumerated by the census as living at their place of registration.

Among the 1.002 billion people enumerated (excluding Taiwan, Hong Kong, Macao, and Tibet), preliminary tabulations of the census results indicate that 98.9 percent (990.6 million) lived in their places

4. In the census, each household member was classified into one of the following five categories of residence: (1) residing and registered in the locality, including individuals who had been away from place of registration for less than one year; (2) residing in a place more than one year but registered elsewhere; (3) residing in a place less than one year but absent continuously from the place of registration for more than one year; (4) living in the locality at time of census but status of registration not yet settled; this category includes persons such as demobilized soldiers waiting for job assignments, students, and ex-criminals released from institutions; (5) originally living in the locality but abroad at time of the census for work or study and therefore without registration.

of registration (SSB, 1982). Of the remainder, 6.3 million people resided in places in which they had lived more than one year without permanent registration, and 4.8 million reported residence with registration still to be settled. Only a small number (210,000) were reported as residing in the particular location of enumeration for less than one year but absent continuously from their legal place of registration for more than one year. Still fewer (57,000) were reported as living overseas. Since it is likely that the large majority of "temporary" migrants, including those away for at least a year, are rural-to-urban movers, the volume and composition of this segment of the Chinese population has particular significance for the nation's urban development.

Temporary Movement

In addition to the population officially registered in urban places and those without registration but counted by the 1982 Census as living in cities and towns, a growing number of "temporary" migrants also swells the urban population. This segment of the population has increased dramatically since 1979 as a response to the growing amount of surplus rural labor created by implementation of the agricultural responsibility system.

At least four different forms of temporary mobility can be identified.

1. Temporary residents may be construction workers (who sometimes number in the thousands) who are recruited from rural areas to provide the labor needed to build major projects including satellite towns, factory complexes, and university expansions.
2. Communes may send groups of their residents to the city to operate collective shops or engage in other commune-sponsored enterprises.
3. Peasants come to cities for days or even weeks to sell their produce and sideline products.
4. Growing numbers of individuals move from rural areas into cities where they are hired on a private basis for their services and skills in such jobs as childcare, housekeeping, and carpentry. All continue to be officially registered in their rural places of origin and hold only temporary residence permits in the city.

Unfortunately, no body of statistics is readily available to document the volume and characteristics of these types of temporary

movement. This documentation difficulty reflects the nature of the registration system. Although a "permanent" legal transfer of household registration is carefully controlled and documented, temporary movement is not. Temporary residents can easily obtain temporary registration from the Public Security Station if they are living with relatives or friends; residence in a hotel or in work unit facilities requires no registration at all. Temporary residents involved in free markets are registered with the Industrial and Commercial Bureau. Many others do not register at all, since the regulations are often not rigorously applied. The net result is a complex system that does not lend itself to centralized statistics or at least to their ready availability.

Not only does the system's deficiency frustrate city planners, who are unable to assess the volume and character of temporary movement for proper planning of urban services, it also distorts estimates of the size and characteristics of the urban population. Temporary migrants are undoubtedly selective in terms of a number of socioeconomic characteristics, including age, sex, and occupation. Many remain in the urban location for extended periods of time and in terms of their economic activity and residential needs would, under most definitions, be included in the urban population.

The Criterion of Grain Source

The fact that many temporary migrants are not classified as urban relates both to the nation's regulations controlling rural-urban migration and to another criterion often used to define the urban and rural population—the individual's source of grain supply. As long as a person holds a rural registration, regardless of the individual's occupation or *de facto* residence, the commune of official residence is responsible for supplying the individual's annual grain allotment. In urban places, grain is purchased from state outlets, and the state is responsible for providing adequate supplies.

Reliance on the source of grain supply as the basis of classification as urban or rural therefore creates a major problem of comparability in the Chinese data on urban-rural distribution. This definition was widely used after the 1964 Census at least into 1984, with resulting enumerations far different from those revealed by the censuses. (Compare, for example, Aird, 1982:279–82; see also Banister, 1984: 264–66.) The magnitude of the problem is illustrated by a news account in the *Beijing Review* (1983) that compared the 1982 Census

results, showing an urban population of 206 million, with the 138 million reported as urban in the previous year by the registry statistics, which indicated an urban growth of 68 million in one year. The report hastened to explain that in addition to the effects of natural increase, permanent migration, and some increase in the number of cities between 1981 and 1982, an important factor accounting for the increase in urban population was the different method of defining the urban population. The 1981 statistics, based on registry data, count as urban only those residing in urban places whose grain was supplied by the state (termed "commercial grain"), a group defined operationally as nonagricultural. Excluded were those living in urban places who were dependent on their own or on their commune's production for their personal grain supply and who were operationally classified as agricultural, even though they may have been engaged in nonagricultural activities.

What particularly complicates the dichotomy is that under this system, individuals who have moved into an urban location and have lived there more than one year but have not changed their registration continue to be classified as agricultural, even if they are engaged in nonagricultural work. The original designation under which they are registered determines their status, and the key criterion is the source of their grain. Similarly, members of communes that are located within officially designated city boundaries are also defined as "agricultural" because they obtain their grain from their communes. Under this system, the urban population more closely resembles a *de jure* rather than a *de facto* count, with only those registered in urban places and receiving commercial grain counted as urban residents.

The effect of the differences in definition is illustrated by data available from the *1983 Statistical Yearbook* (SSB, 1983a:107–8). Excluding the counties and the county towns under the cities' administration (i.e., referring only to inner city populations) but including all residents of the city regardless of how they obtained their grain, 145.2 million people were reported as living in China's 239 cities at the end of 1982. Of these cities, 85 had populations of more than 500,000 and accounted for 74.9 percent of the total city population. Only 17 cities had populations of fewer than 100,000 people; these cities accounted for less than 1 percent of all people living in Chinese cities.

But note how the size and distribution changes if the city population is restricted, by definition, to those residents who obtain their

grain through state outlets. The aggregate number shrinks by almost one-third to 97.1 million, implying that almost 50 million people living in cities are directly dependent on communes for their grain. The number of those who actually are members of communes located within city limits and the number of those who live in the city while remaining registered commune members cannot be ascertained from available data. Moreover, the effect on the city hierarchy is also dramatic. The number of big cities with more than 500,000 population declines from 85 to 48, and the percentage of total city population living within big cities is reduced from three-fourths to below two-thirds (63.8 percent). For small cities, the change in definition has the opposite effect: The number of cities of less than 100,000 increases from 17 to 55, and the population of such places almost triples, while its percentage of the total rises from less than 1 percent to almost 4 percent. If places of 100,000 to 300,000 are included in the small-city category, the corresponding changes in number are from 108 to 160 and the percentage of total city population rises from 12.8 to 23.9 (SSB, 1983a:107).

The effect of criteria employed in identifying the urban population can also be seen by comparing the size of the urban population of individual inner cities using the criterion of residence and agricultural/nonagricultural status. The ratio of the latter statistic to the former varies significantly from city to city (SSB, 1983a:108). Shanghai, for example, at the end of 1982 had 6.27 million urbanites (excluding the population of the rural counties controlled by the municipality) if based on residence and 6.22 million if based on grain supply source, so that there was minimal difference as indexed by a ratio of 99.2 nonagricultural population per 100.0 total residents. Beijing's ratio was noticeably lower (85.9), reflecting the inclusion of many more residents who were supplied by grain directly from communes. For big cities such as Chengdu (57.1), Xian (73.5), and Guangzhou (76.3), the ratios were even lower. For all of the 20 cities with more than 1 million nonagricultural residents, the ratio was 80.8; this contrasted with a ratio of 70.4 for the 20 cities with populations between 500,000 and 1 million. The contrast suggests that overall size affects the extent to which the different criteria "produce" different urban populations. In general, larger cities are characterized by a high ratio, suggesting that these bigger cities generally encompass fewer rural areas within their *inner* city boundaries; when the cities expand to

incorporate rural areas, these become more rapidly urbanized than newly incorporated rural areas of somewhat smaller cities. Whether this relation extends to medium- and small-sized cities remains to be determined when comparable data on a city-by-city basis become available.

Suburban Counties, Urban or Rural?

Another complicating factor in defining the urban population size in 1982 is added, however, because of the state policy (see p. 3) that has allowed selected cities to place a number of adjoining counties under their jurisdiction. According to the 1982 Census (SSB, 1983b: Table 11), 58 cities have suburban counties. These were distributed among cities of all size classes but were disproportionally concentrated among big cities. Of these, 45 percent had suburban counties, compared with only 16 percent of medium-sized cities and 6 percent of small cities. For all these places, the city boundaries were thereby effectively extended to encompass both inner city districts and the officially designated suburban counties. If no attention is given to this distinction, as in the case of some reports issued by the United Nations, China's urban population is greatly expanded. For example, in 1982, the combined inner city and suburban county population numbered 227.1 million; this figure represents a 50 percent increase over the 145 million urban population of the cities' inner districts and raises the percentage of the population in cities from 14.5 to 22.7 percent of China's total population.

Some of the towns classified as urban are within these suburban counties. Since currently available data do not allow separation of these towns from the suburban counties, one cannot ascertain how many of the 61 million reported by the census as living in all towns in China are encompassed within suburban counties. It is clear, however, that if the nation's total urban population were to include not only all the cities and towns, but also the balance of the suburban counties, over which cities have jurisdiction, then China's level of urbanization would be well beyond the 20.6 percent reported by the 1982 Census. The choice of data used also affects the nature of China's urban hierarchy. The possibility of using the combined inner city and suburban county population instead of only residents of the inner city as the total city population argues for careful attention first to which data set is being used.

The challenge of comparability

Overall, my assessment suggests that depending on which criteria are adopted, very different views emerge about the character of overall urbanization in China. Insights are difficult to draw, however, on how the nature of urban places can change depending on who is included or excluded under differing definitions. Nor is it possible to completely judge the role of urbanization in the development/modernization process without such information.

Both the problem of how to define urban populations and the magnitude of the difference are exacerbated by the fact that registry statistics and other data sources continue to rely on the definition of urban in terms of grain source. This definition introduces major discrepancies that create severe problems of comparability, both over time and between China and other nations. One can only hope that as the Chinese continue to focus their efforts on improving their statistical systems, the problems associated with the use of widely different definitional criteria will be resolved. The 1982 Census made the firm decision to include as urban all persons who had resided for a year or more within cities and towns designated as urban by the State Council, regardless of the source of their grain ration or their place of registration; this decision is a major step forward. It warrants replication in other statistical systems to ensure comparability. As a step toward enhancing standard definitions and comparability, the *1983 Statistical Yearbook* (SSB, 1983a:103) has issued a time series covering 1949–1982 in which the annual estimates beginning in 1964 have been adjusted to make them comparable with the 1982 criteria. The pre-1964 data have not yet been adjusted to ensure comparability with 1982, thus creating a break in the continuity of the series between the 1963 and 1964 year-end statistics (Banister, 1984). These differences in comparability must be recognized in the ensuing analysis both for data referring to the unadjusted pre-1964 population figures and for data sets thereafter which use urban definitions different from those employed by the 1982 Census. It must, at the same time, be recognized that the quality of the various data sets–including the 1953 and 1964 censuses–varies and that this may also affect comparability. As Ansley Coale (1984) has noted, however, various quantitative comparisons among numbers derived from the censuses of 1953, 1964, and 1982 and from the large-scale fertility survey

conducted in 1982 show a surprising degree of consistency. (See also Banister, 1984:241–43.)

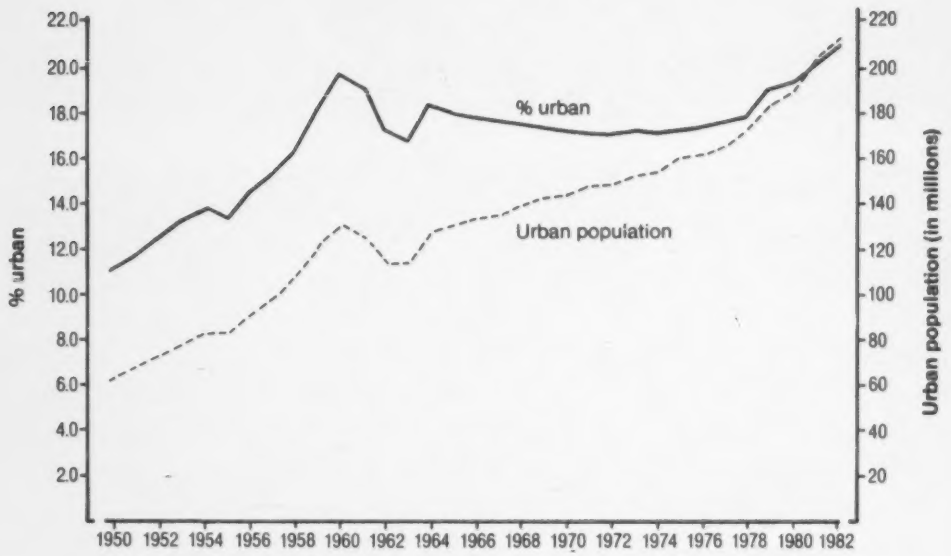
LEVELS AND PATTERNS OF URBANIZATION IN CHINA

Changes in urbanization levels

In 1949, China's total population, according to the estimates prepared by the State Statistical Bureau (1983a), was just more than half of what it was at the time of the 1982 Census–541,670,000 people in 1949 compared to 1,003,790,450 people enumerated in 1982. By the end of 1982, the State Statistical Bureau estimated that China's population was 87 percent greater than it had been at the end of 1949. This growth, equivalent to an annual rate of 1.87 percent, did not apply uniformly to both urban and rural places.

In 1949, only 10.6 percent of China's population lived in urban places yet their number (57.6 million people) was more than the total populations of all but 11 countries of the world as recently as 1983. By the 1982 Census, the urbanization level had doubled to 20.6 percent but was still well below the level of urbanization in developing countries as a whole, which was about 32 percent in 1982 (United Nations, 1982). (Figure 1) The 206.6 million living in urban places in China were exceeded in number by the total populations of only three countries of the world–the United States, the Soviet Union, and India. By the end of 1982, according to SSB estimates, the number had already risen to 211.5 million, making China's urban population 3.7 times greater than it had been at the end of 1949. By contrast, and despite an overwhelming estimated size of 803.9 million at the end of 1982, China's rural population was only 1.7 times greater than it had been 33 years earlier. These 800 million rural people, a growing number of whom are becoming surplus labor, constitute a major reservoir of potential migrants to cities and present China with a major challenge of how to control its urbanization rates while it proceeds to develop and modernize the countryside.

Between 1949 and 1982, the pace of urbanization in China was uneven. Changing policies related to the control of urban growth and the location of industry, political factors associated with the Great Leap Forward and the Cultural Revolution, and natural catastrophes have all affected the speed of change in urbanization levels. Moreover,



Note: In Figures 1–4, data on the urban population before 1964 are based on a definition that differs from that used from 1964 on; no adjustment for this difference has been made.

FIGURE 1. Urban growth in China, 1949–82

because of efforts at different times since the 1950s to reduce the birthrate–success varied both over time and between urban and rural places–the annual growth rates in both urban and rural places have varied considerably from year to year, even while the long-run pattern has been one of rising urbanization levels concurrent with growing numbers of people in both urban and rural places.

China's first census in 1953 followed a period of reconstruction and marked the beginning of the first Five Year Plan (1953–58). At that time, China's urban population was enumerated at 77.3 million and its end-of-year population is estimated by the State Statistical Bureau to have been 78.3 million persons, equivalent to an urbanization level of 13.3 percent (Table 1). These figures suggest that the initial years following the establishment of the People's Republic in 1949 resulted in substantial urban growth. In absolute terms, the number of people living in cities increased during this four-year interval by 21.6 million, almost as much as the number living in rural areas, 25.7 million. Given the different base populations, the urban growth rate was much

TABLE 1. Urban and rural population, selected years
(Year-end, in 1,000s)

Year	Total	Urban[a]	Rural[b]	% urban
1949	541,670	57,650	484,020	10.6
1953	587,960	78,260	509,700	13.3
1960	662,070	130,730	531,340	19.7
1964	704,990	129,500	575,490	18.4
1970	829,820	144,240	685,680	17.4
1974	908,590	155,950	752,640	17.2
1980	987,050	191,400	795,650	19.4
1982	1,015,410	211,540	803,870	20.8

SOURCE: State Statistical Bureau (1983a:103–04).

a. Urban refers to population of inner cities and towns and includes the military population.

b. Rural refers to counties, including suburban counties of cities, exclusive of towns.

higher, 36 percent for the four years, compared with only 5 percent in rural areas.

The first Five Year Plan had a clear bias toward heavy industry and building large urban centers. It also coincided with the establishment of the people's communes, which caused considerable rural dislocations and massive rural-to-urban migration (Orleans, 1982:278–79). The outflow of peasants was so great that the resulting pressures on cities led, during 1956–1957, to the mobilization of millions of people, especially youths, to move from the cities to the villages and also led to attempts to institute controls on rural-urban movement. But cities continued to grow. The controls, which met with only limited success, were abandoned altogether in 1958 when the Great Leap Forward began. For the next two years—until natural calamities and mismanagement brought a halt to the Great Leap Forward—the urban population was swollen by in-migrants.

Reflecting the effects of these various policies, the SSB data on urban and rural populations indicate a continuing growth of the urban population from 77 million people at the time of the 1953 Census to a peak of 130.7 million at the end of 1960; the 1960 level of urbanization was thus 19.7 percent, well above that reported in the 1953 Census and almost double that in 1949. With the collapse of the Great Leap Forward, millions of urban residents were relocated to rural areas (Orleans, 1982:279); the urban population declined to a low of

116.5 million people at the end of 1963, accounting for only 16.8 percent of the total population. A spurt of growth followed (the reasons are not clearly explained by the available data) so that by 1964, the urban population had risen to 129.5 million, or 18.4 percent of the total population.

Since 1964, according to SSB estimates, both the urban and the rural populations have been characterized by continuous increases. The unrest associated with the Cultural Revolution between 1966 and 1976 and the return of rusticated youths and others to cities have contributed to urban growth. Despite restrictions on rural-urban migration, such movement has also contributed to the growth of big cities and even more to the growth of medium- and small-sized places. The result is that between the end of 1964 and the end of 1982, the urban population grew from 129.5 million to 211.5 million, averaging an annual increase of 2.7 percent. The rural population also experienced substantial growth at an average rate of 1.9 percent, increasing from 575.5 million to 803.9 million by the end of 1982.

As earlier discussion of China's definition of urban indicated, the urban population includes those living in cities and residents of towns. At the time of the 1982 Census, China had 236 cities and 2,664 towns.[5] The number of people residing in cities far exceeded the town population; just more than 70 percent of all of the urban population was living in cities, equalling 14.5 percent of China's total population.[6] The 30 percent of the urban population living in towns constituted only 6.1 percent of China's people; the remaining 79.4 percent live in rural areas. Clearly, urbanization in China has been largely a city phenomenon; whether the recent emphasis on towns as a potential location for increasing urban settlement will change this situation remains to be seen.

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5. By the end of June 1984, reports released by the National Conference on the Development of Small Cities and Towns indicated the number of towns in China had risen to 5,698. This impressive increase was attributed to the effects of the burgeoning commodity economy and new emphasis on town development (*People's Daily*, September 9, 1984).

6. Unless otherwise indicated, the city population is restricted to inner city districts; the suburban counties which include a considerable rural population are omitted, although they are administratively part of the city (*shi*).

Regional distributions

China's population is unequally distributed in relation to the geographic size of the various regions[7] (Map 1). Most extreme are the East region, which in 1982 encompassed 29 percent of China's population but only 8.5 percent of its land area, and the Northwest, which contained only 7 percent of the population but one-third of the nation's territory. The other regions also showed imbalances between the proportion of the country's population and the land area. Thus, the three regions that encompass most of China's coastal provinces (East, Northeast, and Central-South) contained two-thirds of the total population but only one-third of the land; and the two regions containing only land-locked provinces (Northwest and Southwest) accounted for 59 percent of the land area but only 23 percent of the population. The North region, which includes the coastal municipality of Tianjin as well as sparsely populated Inner Mongolia, had a closer balance between population and land area: 11.4 percent and 8.3 percent, respectively.

Distribution of the Urban Population

The data by region (center panel, Table 2) indicate that China's urban population is also unevenly distributed. Just more than 60 percent of the urban population is resident in three regions—the North, the Northeast, and the East—whereas only 47 percent of the rural population lives in these sections of the country. As already suggested, the Northwest is sparsely populated, and accounts for only 7 percent of the urban and the rural populations of China. Reflecting their much greater density but their lower levels of urbanization, the Central-South and the Southwest regions account for 32 percent of the urban population but 46 percent of the rural. Sichuan Province alone

7. The regions delineated in this paper correspond to the Administrative Areas established in 1949–50 (Ginsburg, 1952). Designed initially for political-administrative purposes, they were not and are not designed as coherent economic planning units. Nevertheless, these regional distinctions are still used in China for statistical and other purposes even though their administrative role has fallen into disuse. In this paper, they serve as a way in which to examine geographic urbanization variations which are in large part consistent with the regional distinctions used by other analysts of spatial development in China (compare Chiu, 1980:99–107). The same regions have also been used recently by other scholars evaluating China's population situation (for example, Orleans, 1982:Table 2; Taylor, 1984).

MAP 1. China's administrative and regional divisions

TABLE 2. Population of cities, towns, and rural areas, by region, 1982

Region	Cities	Towns	Total urban	Rural areas	Total
Number of people (in millions)					
North	24.2	5.2	29.4	85.1	114.6
Northeast	25.9	11.4	37.3	53.6	90.9
East	41.0	18.7	59.7	234.7	294.4
Central-South	27.1	14.9	42.0	230.0	272.0
Southwest	16.5	7.8	24.3	138.5	162.7
Northwest	10.0	3.9	13.9	55.5	69.3
Total PRC	144.7	61.9	206.6	797.4	1,003.9
% distribution by region					
North	16.7	8.4	14.3	10.7	11.4
Northeast	17.9	18.4	18.1	6.7	9.1
East	28.4	30.2	28.9	29.4	29.3
Central-South	18.7	24.0	20.3	28.8	27.1
Southwest	11.4	12.6	11.7	17.4	16.2
Northwest	6.9	6.4	6.7	7.0	6.9
Total PRC	100.0	100.0	100.0	100.0	100.0
% distribution by urban/ rural category					
North	21.1	4.6	25.7	74.3	100.0
Northeast	28.5	12.5	41.0	59.0	100.0
East	13.9	6.4	20.3	79.7	100.0
Central-South	9.9	5.5	15.4	84.6	100.0
Southwest	10.1	4.8	14.9	85.1	100.0
Northwest	14.3	5.7	20.0	80.0	100.0
Total PRC	14.4	6.2	20.6	79.4	100.0

SOURCE: State Statistical Bureau (1982: Table 5).

(located in the Southwest), with its 100 million people and highly rural character, is a major factor in this distribution.

Of interest, too, is the regional distribution of the city and the town population (Figure 2). The difference between these two distributions within regions is much less than the differential regional distribution of the urban and rural populations. Only in the North, and to a lesser extent in the Central-South, does the percentage of city population located in the region differ substantially from the percentage of town population. Relatively twice as many of China's city residents live in the North than do its town residents (16.7 versus 8.4 percent),

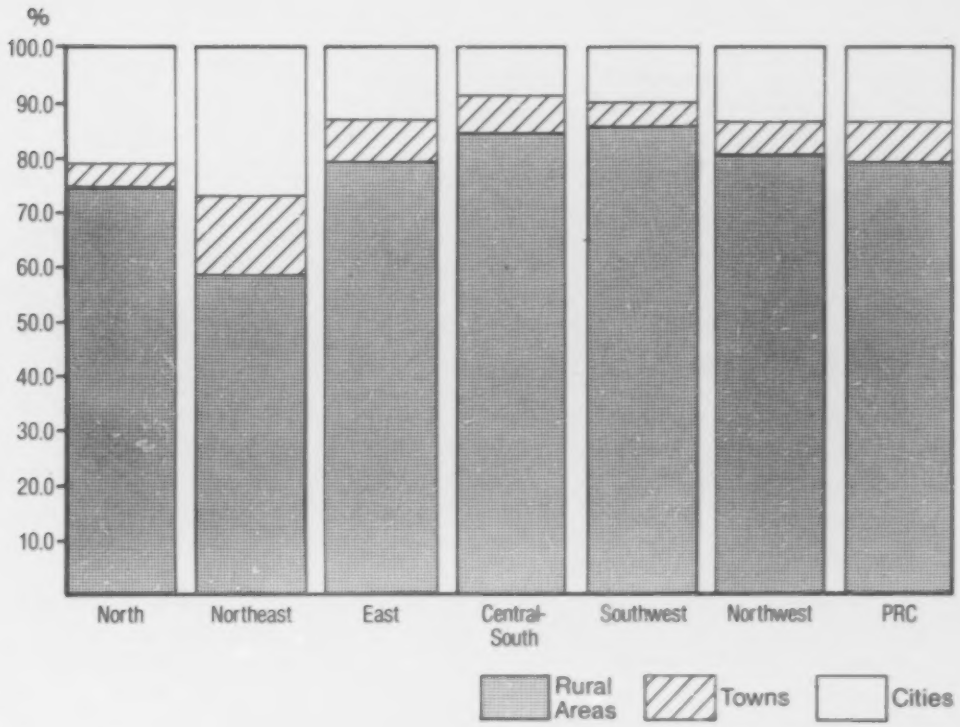

FIGURE 2. Distribution of regional populations among rural areas, towns, and cities: China, 1982

whereas the Central-South region contains substantially more of China's town than city population. The East region, however, clearly contains the largest proportion of China's urban population, judged either by those living in the cities or in towns. The index of dissimilarity indicates that the difference between the regional distribution of the city and town populations is less than the difference between urban and rural; only 4.4 percent of the population would need to be redistributed for the city and town distributions to resemble each other among regions, whereas 7.5 percent would have to be redistributed before the percentages of the urban and rural populations were similar.

Although these regional variations were still pronounced in 1982, comparisons with data from the 1953 Census indicate that they had lessened considerably during the 30-year interval. In 1953, the Northeast had the highest levels of urbanization of any region, with more than one-third of its population urban (Table 3). The North and East

TABLE 3. Number and distribution of urban population by region, 1953 and 1982, and % change

Year and region	Population (1,000s)		% urban	% distribution of urban	% change 1953–1982	
	Total	Urban			Total	Urban
1953						
North	65,000	12,705	19.5	16.4	–	–
Northeast	43,753	15,619	35.7	20.2	–	–
East	179,459	24,221	13.5	31.4	–	–
Central-South	159,563	12,954	8.2	16.8	–	–
Southwest	99,469	8,435	8.4	10.9	–	–
Northwest	35,359	3,323	9.4	4.3	–	–
Total	582,603	77,257	13.3	100.0	–	–
1982						
North	114,566	29,452	25.7	14.3	76.3	131.8
Northeast	90,947	37,315	41.0	18.1	107.9	138.9
East	294,408	59,750	20.3	28.9	64.1	146.7
Central-South	271,956	41,940	15.4	20.3	70.4	223.8
Southwest	162,713	24,249	14.9	11.7	63.6	187.5
Northwest	69,347	13,882	20.0	6.7	96.2	317.8
Total	1,003,937	206,588	20.6	100.0	72.3	167.4

SOURCES: Data for 1953 from Orleans (1982). Data for 1982 from State Statistical Bureau (1982).

had the next highest urban percentages but at substantially lower levels. Minimum differences characterized the other three regions, each being 8–9 percent urban.

As previously discussed, this pattern had changed substantially, testifying to some success in China's efforts to decentralize its population and cities (Figure 3). While the Northeast continued to be the most urbanized region, the Central-South, Southwest, and Northwest greatly increased their urban percentages to between 15 and 20 percent. As a result, whereas the Northeast in 1953 was more than four times as urbanized as the least urbanized regions, in 1982 it was not even three times as urban as the least urbanized, and more often the ratio was 2:1 or 1.5:1.0. Urbanization, broadly defined, had become considerably more widespread.

The change in overall urbanization levels is also reflected in the changing distribution of the urban population. The urban populations of the three regions in the north and east declined from 68 percent of

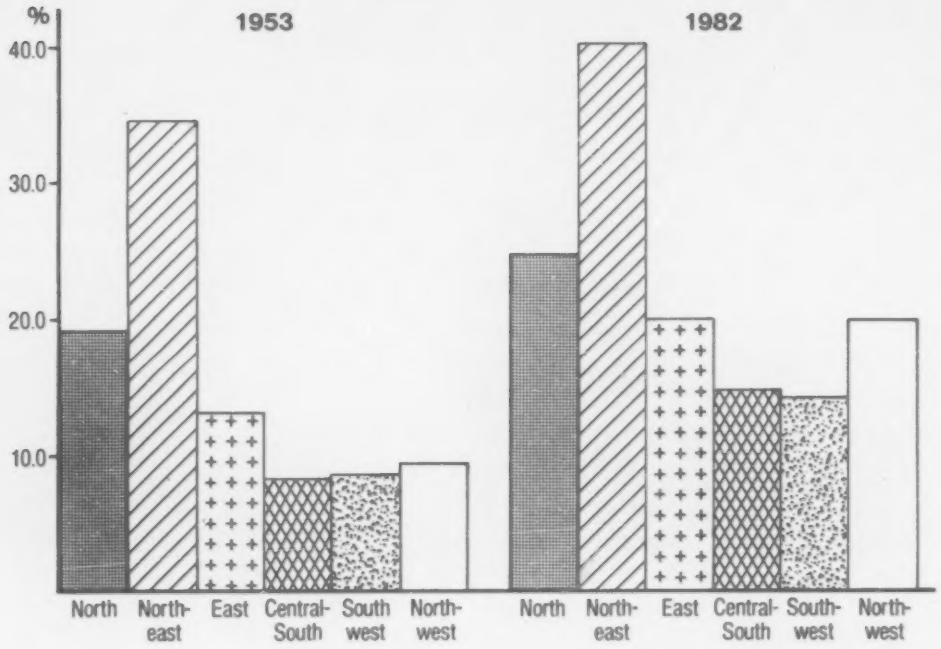

FIGURE 3. % urban of each region's total population: China, 1953 and 1982

the country's total to 61 percent, while that of the Central-South increased from 17 to 20 percent, and that of the two western[8] regions increased from 15 to 18 percent of the total. This redistribution reflects the effects of differential growth rates among the regions. As the percentage of change in Table 3 shows, in all regions the urban population grew at faster rates in this 29-year period than did China's total population, but the extent of the differential varied. For the total population, the 29-year period witnessed regional growth ranging between 64 and 108 percent, with the Northeast being highest and the East and Southwest the lowest. During this same time, however, the urban population grew by between 132 and 318 percent, and the growth was especially great in the Central-South and the west. Thus, while the urban population increased by somewhat more than 100 percent in the regions of the North and East, it grew by as much as

8. "Western" and "west" refer to the combined Southwest and Northwest regions.

224 percent in the Central-South and by as much as 318 percent in the Northwest. Policies designed to relocate industry and develop urban places in inland areas obviously had an impact.

These regional data show that the distribution of the urban population between cities and towns varies as well (Table 2, lower panel).[9] The Northeast region, which was considerably developed during the Japanese occupation, has undergone further substantial industrial development since then. It is the most urbanized region of China, with more than four of every 10 persons living in urban places and about three of these four living in cities. Not surprisingly, the next most urbanized is the North, which includes two of China's three municipalities—Beijing and Tianjin; one-fourth of its population is urban and by far the greatest proportion of these live in cities.

The urbanization levels in the remaining four regions of the nation cluster within the range of 15–20 percent. Somewhat surprisingly, the East, which includes Shanghai, and the Northwest, which encompasses the provinces along the Soviet border, have equal urbanization levels and virtually the same distribution pattern of the urban population between cities and towns, a ratio of more than 2:1. The reasons for these similar patterns are, however, quite different. In addition to the major metropolis of Shanghai, the East includes a number of older coastal cities; its urban population totals 59 million persons, but it also has very densely populated rural areas. By contrast, urban places in the Northwest consist much more of recently developed industrial cities and a relatively sparsely settled terrain. The total urban population (about 14 million people) is only about 23 percent as large as that of the East region; in fact, with its 59 million urbanites, the East's urban population is not far below the total population of the Northwest. The lowest levels of urbanization characterize the Central-South and Southwest regions of China, with 15 percent of their populations in urban places, divided in a ratio of about 2:1 between cities and towns.

9. Unfortunately, the published results of the 1982 Chinese Census (the 10 percent tabulations), the most comprehensive set of information yet available from the census, do not provide a breakdown of the urban population by cities and towns for each of the 29 provinces, municipalities, and autonomous regions. This information was published in the earlier manual tabulations from the 100 percent count (SSB, 1982), but these differ slightly from the results of the 10 percent sample. The manual count, for example, shows 14.4 percent of the total population living in cities and 6.2 percent in towns; the sample data show this distribution to be 14.5 and 6.1 percent, respectively.

TABLE 4. Number of cities and towns, by region, and average population size

Region	Number		% distribution		Average size (in 1,000s)	
	Cities	Towns	Cities	Towns	Cities	Towns
North	30	221	12.7	8.3	807.8	23.6
Northeast	34	295	14.4	11.1	762.5	38.6
East	60	752	25.5	28.2	683.9	24.9
Central-South	64	646	27.1	24.2	422.9	23.0
Southwest	25	539	10.6	20.3	659.1	14.4
Northwest	23	211	9.7	7.9	432.4	18.7
Total PRC	236	2,664	100.0	100.0	613.0	23.2

SOURCE: State Statistical Bureau (1982:Table 5).

Distribution of Urban Places

Still another perspective for evaluating the regional differences in urbanization is to examine the location of the cities and towns themselves rather than the populations living in them. The data in Table 4 present the statistics for the 236 cities and 2,664 towns that constitute the urban units of the 1982 Census. The results differ somewhat from the patterns indicated by the distribution of urban population. Judging by the number of cities, regardless of size, the Central-South region is the most urbanized, with 27 percent of China's cities located there; it is followed very closely by the East, which accounts for just more than one-fourth of the cities. No other region contains more than 15 percent, and the Northwest has less than 10 percent of China's cities. Again, the influence of the coastal areas is clear. By contrast, towns are much more widely dispersed. The East region and the Central/South reverse the order, but the difference between the two is not great; together they account for 52 percent of all of China's towns, just as they accounted for slightly more than 52 percent of its cities. However, the Southwest is also prominent among the regions for a substantial percentage of towns, probably reflecting a relatively high population density coupled with a relatively low proportion of cities, so that towns are relied on more heavily for commercial functions.

Considerable regional variation exists for the average population

size of cities and towns in the respective regions (Table 4). For China as a whole, the 236 cities averaged a population of 613,000 people in 1982, but this average ranged from a high of 807,800 for cities in the North to averages of 432,400 in the Central-South and 422,900 in the Northwest. While the high averages of the North and the East are not surprising, given the location of many of the major metropolises in these regions, the unusually high average for the Northeast, reflecting the considerable industrial/urban development, is noteworthy.

The towns in China obviously represent a category in themselves, averaging only about 23,000 people. The Northeast is outstanding; its average of 38,000 far exceeds that of China as a whole. The North, the East, and the Central-South regions vary minimally with respect to the average size of towns, around 24,000; for the more remote regions in the country—the Southwest and the Northwest—the averages are below 20,000. This pattern, too, may be related to the smaller number of cities in these comparatively large geographic areas. Towns in these regions must therefore serve multiple functions, which is accomplished through many small towns scattered over a wide area. Further insights into these patterns may be gained through examination of statistics on the distribution of cities by size.

Distribution by size class of cities

National Patterns

Between 1953 and 1982, the number of cities in China increased from 173 to 236. The comparative distribution of these cities by size class[10] (Table 5) clearly indicates a substantial upward shift to larger size categories. In 1953, four of every 10 cities had less than 100,000

10. The statistics by city size class are based on Table 11 of the 10 Percent Sample of the 1982 Census (SSB, 1983b:28–211). In this table, data on individual cities and counties are presented by province with subdivisions for inner cities and suburban counties where applicable. These individual city data therefore provide the basis for the aggregations by city size class. The data in Table 11 of the 1982 Census volume have been corrected according to information received after publication. Three counties in Jiangxi Province were incorrectly identified as cities and one city in each of the Hunan, Yunnan, and Shaanxi Provinces was classified as a county in the published data. Tables 5–7 of this report incorporate the corrected data. Despite these corrections, a discrepancy (567,990) still exists between the total population in inner cities based on the aggregate data from Table 11 and the totals published in other tables (e.g., Table 20) of the census report.

TABLE 5. Distribution of cities and of city population, by size class, 1953 and 1982, and % change

Size class	1953		1982		% change 1953–1982
	Number	% distribution	Number	% distribution	
Cities					
5.0 million and more	1	0.6	3	1.3	+200.0
2.5–4.99 million	2	1.1	5	2.1	+150.0
1.0–2.49 million	6	3.5	30	12.7	+400.0
500,000–999,999	16	9.2	46	19.5	+187.5
200,000–499,999	28	16.2	85	36.0	+203.6
100,000–199,999	49	28.3	49	20.8	0
Less than 100,000	71	41.1	18	7.6	-74.7
Total PRC	173	100.0	236	100.0	+36.4
City population (in millions)					
5.0 million and more	6.2	11.8	17.0	11.7	+174.2
2.5–4.99 million	5.5	10.5	15.6	10.8	+183.6
1.0–2.49 million	9.3	17.8	42.6	29.4	+358.1
500,000–999,999	11.3	21.6	32.8	22.7	+190.3
200,000–499,999	8.5	16.2	28.0	19.3	+229.4
100,000–199,999	7.2	13.7	7.4	5.1	+2.8
Less than 100,000	4.4	8.4	1.4	1.0	-69.2
Total PRC	52.4	100.0	144.8	100.0	+176.3

SOURCES: 1953 data based on Ullman (1961). 1982 data based on State Statistical Bureau (1983b).

inhabitants and an additional 30 percent had between 100,000 and 200,000 (Ullman, 1961:10). Compared with 1953, when there were 71 cities under 100,000, only 18 cities under 100,000 were identified in 1982. That number represents 7.6 percent of all cities. Even if cities in the next largest size class (100,000–200,000) are included, the percentage of small cities remained below one-third of the total, compared with two-thirds 30 years earlier. In fact, with the exception of the size groups under 200,000, every size category had a greater absolute number of cities in 1982 than in 1953. All but one category increased about threefold in number; cities ranging in the 1 million to 2.5 million category were five times more numerous in 1982 than in 1953. Whereas China had only nine million-plus cities in 1953, it had 38 such cities in 1982, eight of which had 2.5 million or more

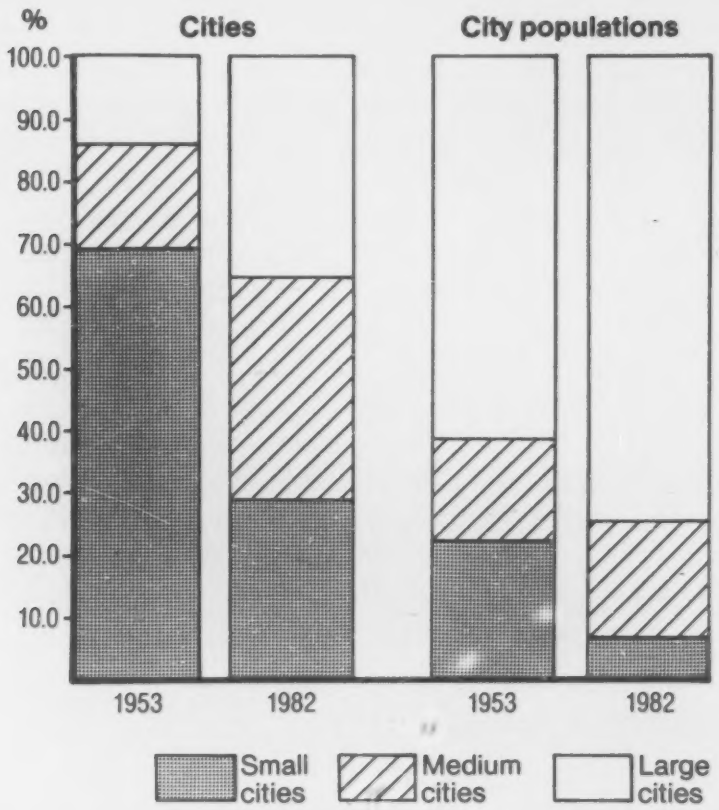

FIGURE 4. Distribution of cities and city populations, by city-size class: China, 1953 and 1982

inhabitants. Although the three municipalities—Shanghai, Beijing, and Tianjin—dominated the urban hierarchy of China, the greatest proportion of Chinese cities was in the medium-sized category: more than one-third of the cities had between 200,000 and 500,000 residents (Figure 4).

The distribution using cities as units of analysis does not fully reveal the size category in which the urban population is concentrated. Examination of the distribution in 1982 of the city population by city size shows that the metropolises dominated the urban hierarchy even more than their numbers would indicate (Table 5). Whereas cities

of a million or more constituted only 16 percent of all cities, they accounted for just more than 50 percent of all of China's population living in cities, and almost half of these people lived in cities of 2.5 million persons or more.[11] Medium-sized cities, by contrast, while accounting for just more than one-third of the total number of cities in China, encompassed only 19 percent of the population living in China's cities. An even greater discrepancy characterizes the smaller cities which, while accounting for 28 percent of all cities, contained only 6 percent of the city population. Clearly, the city population of China is unequally distributed by size category and helps to explain why government policy invokes strict control on the further growth of big cities while encouraging the growth of small cities and towns to serve both as alternative centers of settlement and as linkages between the larger cities and the countryside (Pannell, 1984:210–13).

Restricting the assessment of distribution by size category to cities omits the populations living in towns, which are also part of the urban hierarchy. The 2,664 places classified as towns accounted for over 90 percent of all urban places in China and for almost 30 percent of the population in urban places. Although the published census statistics do not include data on the size of towns, such information is provided in a report by Ding (1984), who has described the urban/rural distribution of China's population using 1982 Census results. These data show considerable variation in the size of places designated towns. Of the 2,664 towns, 26 had more than 100,000 residents and an additional 231 had populations of 50,000–100,000. Such places are similar in size to the 66 small cities of less than 200,000 population. On the other hand, more than 90 percent of China's towns had populations under 50,000, and 58 percent were reported as having under 20,000. If China should succeed in its efforts to develop a significant number of new towns as urban growth centers and to increase the population living in existing towns so that these places are able to absorb a substantial proportion of the agricultural surplus labor, the predominance of these smaller places in the urban hierarchy, judged both by their numbers and by the percentage of urban population living in them, should increase significantly in the years ahead.

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11. Cities may be classified into three categories: (1) big cities have 500,000 or more population with those of 1 million or more considered metropolises; (2) medium cities range between 200,000 and 499,999; (3) small cities have 50,000 to 199,999 inhabitants.

Regional Distributions

The distribution of cities by size for each of the regions also points to considerable regional variation in the urban hierarchy. Two of China's three municipalities are in the North, separated from each other by only a short distance. The third, Shanghai, is in the East. Neither of these two regions has a city in the next category, 2.5–5 million people. The five cities in this class are distributed among three other regions–the Northeast, the Central-South, and the Southwest. Thus, all regions but the Northwest have at least one city of 2.5 million or more population. The Northwest's largest city, Xian, had only 2.2 million people in 1982. The cities in each of the other classes are distributed among all regions.

When comparisons are made in terms of big, medium, and small cities (Table 6), for China as a whole, the big- and medium-sized city categories each contain about 36 percent of all cities; small cities constitute 28 percent. However, this pattern does not extend to each region. In the North and the Southwest, one-third of the cities fall into the big city category, about one in four are medium-sized, and one quarter are small cities. The Northeast has a conspicuously larger proportion (59 percent) of big cities than any other region and the smallest proportion (15 percent) of small cities. The East also has a relatively larger proportion of big than of medium and small cities. The reverse situation characterizes the Central-South region, where 41 percent of the cities are in the small-city category, and only 22 percent are big cities. Like the Central-South region, the Northwest also has a relatively smaller proportion (26 percent) of big cities, but the remainder are almost equally divided between the other two size categories, with a slightly lower percentage in small cities.

The population distributes differently among size categories by region than do the cities. In all regions, 60 percent or more of the city population resides in big cities. For all but the Central-South and the Northwest regions, the percentage is above 75 percent, and for the Northeast it is 87 percent. All regions have far more of their city populations living in medium rather than small-sized cities, but in only two regions–the Central-South and the Northwest–is it as high as one-fourth. These two regions are also the only ones to have at least 10 percent of their city populations in small cities. Despite the stress in the 1980s on small places, in China as a whole and in most regions,

TABLE 6. Distribution of cities and of city population, by size class and region, 1982

Size class	North	North-east	East	Central-South	South-west	North-west	Total
Cities							
Big cities	33.3	58.8	43.4	21.8	32.0	26.1	35.6
Medium-sized cities	40.0	26.5	33.3	37.5	44.0	39.1	36.0
Small cities	26.7	14.7	23.3	40.7	24.0	34.8	28.4
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number	30	34	60	64	25	23	236
City population							
Big cities	79.2	86.6	76.8	59.3	76.1	62.3	74.6
Medium-sized cities	16.5	11.5	17.7	28.8	19.2	27.7	19.3
Small cities	4.3	1.9	5.5	11.9	4.7	10.0	6.1
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: State Statistical Bureau (1983b).

small cities still account for only a low percentage of the total city population.

Changes in Big City Distribution, 1953–1982

Given China's concern with controlling the growth of big cities, particular attention to this size category (500,000 and more) seems in order. Such a focus provides further insights into the changing patterns of urbanization between the 1953 and 1982 censuses. At the time of the 1953 Census, China had 25 big cities (Ullman, 1961), compared to the 85 identified in the 1982 Census. Although there had been a sharp rise in the number of big cities, their geographic distribution did not change substantially. In 1953, 17 of the 25 cities (68 percent) were located in the North, Northeast, and East regions and only four, or 16 percent, were in the west; the remaining four were in the Central-South region. By 1982, the number of big cities in the three northern and eastern regions had more than tripled to 57, but still constituted 67 percent of all the big cities in China. Moreover, the west and the Central-South each still contained 16 percent of the big cities. Overall, therefore, while these three decades witnessed significant increases in the number of big cities in each region, these

data on all big cities point to minimal change in their regional distribution, suggesting that the development of new big cities inland has been balanced by big city growth in the earlier developed coastal areas.

If only million-plus big cities are considered, some change in the regional distribution becomes apparent. In 1953, two-thirds of the million-plus cities were in the North, Northeast, and East; by 1982, these regions still accounted for 71 percent. But whereas the west had only three such cities in 1953 (11 percent of the total million-plus cities), it had 11 in 1982, which accounted for 18 percent of all such cities in China. The Central-South region gained only two million-plus cities in these three decades, halving its percentage of China's total from 22 to 10 percent. The overall impression from these comparative data for 1953 and 1982 is that both eastern and western China have been characterized by big city growth, with the western region showing more change in the relative number of very big cities.

The changing distribution by size category of China's big cities has involved considerable shifting in size classification of individual cities—shifts that are marked by net gains and losses to individual categories. Of the 85 cities of 500,000 and more, only three were in the same size class in 1982 as they had been in 1953; these were Shanghai in the five million-plus group, Nanjing in the 1 million to 2.5 million class, and Wuxi, which remained in the 500,000 to 1 million group. Each of the other 82 cities shifted and all moved upward, including Beijing and Tianjin, which shifted from the 2.5–5 million class to the 5 million-plus class. These data also indicate that of the 60 big cities in 1982 that had fewer than 500,000 residents in 1953, 14 grew to more than 1 million people. Most of the "newcomers" to big-city status—40 of the 60 additions—were located in the three regions of the North, Northeast, and East. However, 10 big cities were added to the four big cities in the two western regions in 1953, reflecting the concerted efforts to spread major urban centers to these inland regions of China.

Further insights into the extent of change in China's urban hierarchy can be obtained by comparing the 25 largest cities and their rank size in 1953 with the 25 largest in 1982. Each of the 25 largest cities in 1953 had at least 500,000 population. In 1982, each of the largest 25 cities had more than 1.2 million inhabitants; 18 of these were among the 25 most populous in 1953, and their comparative rank had changed minimally. In fact, the Spearman rank correlation between the two sets was .978. All seven of the 1953 largest cities not

qualifying in 1982 were located in the eastern half of China; of the seven newcomers to the list, three were situated in the western half of the nation. These data again point to a limited shift westward in the location of big cities.

Primacy

Concern with urbanization in developing countries has focused not only on the overall rate of urbanization and urban growth but also on the nature of the urban hierarchy and the extent of spatial polarization as evidenced by conditions of primacy. In a number of developing countries, including some in Asia, the major city—usually the national capital—has far outpaced other cities in its growth rate; it encompasses a disproportional share of the nation's economic, political, cultural, and educational activities, and it is the recipient of a large share of total investment both from the national government and from overseas. The same locations have very often been characterized by high degrees of social and economic inequality among their residents, even while they remain the goals of a large number of prospective migrants from rural areas and small towns because these cities are viewed as providing far greater opportunities than other locations.

Chinese planners and policy makers have been cognizant of this potential situation and concerned both with existing conditions in China's big cities and the possibility that uncontrolled growth of big cities would lead to problems similar to those characterizing many other primate cities in Asia and elsewhere. In response, during the 1960s and 1970s, the Chinese government attempted to develop policies designed to promote the wider income distribution, reduce regional inequalities, and create a more balanced urban hierarchy, which would lead to a greater decentralization of economic activities. In doing so, the intention was to slow population growth in the largest cities, while allowing continued increases in medium-sized and smaller urban centers. The primacy of the larger cities would thereby be reduced, and the growth of towns and the smallest cities would lead to more effective linkages to rural areas and expedite the modernization and development of the countryside. Given this general program, one would expect that the primacy levels characterizing China in 1953 would have been considerably reduced by 1982.

Because China is so vast and because activities are still largely organized in terms of provincial and regional networks, a fair assess-

ment of the extent of primacy should be undertaken on regional and provincial levels rather than on the national level itself.

Measurement of the degree of primacy in 1982 relies upon census data on the size of the cities (using inner city data only) to construct a four-city primacy index. This index compares the size of the leading city in the country, in the region, and in the individual provinces, respectively, with the size of the next three largest cities in the same geographic grouping. If the cities conform to the rank size rule, then the resulting index will be approximately 100 since, according to the rank size rule, the second city should approximate one-half of the first, the third city one-third of the first, and the fourth city one-fourth of the first; that is, the second to fourth cities together should approximate the size of the first city. An index above 100 points to primacy and one below 100 suggests that the next few cities are well above what one would expect according to a rank size "normal" distribution.

The expectation, based on the earlier review of the urban hierarchy, is that China as a whole will show no indication of a primate condition, but that primacy will be characteristic of certain regions and even more so in selected provinces (see also Yeh and Xu, 1984). The data confirm this expectation (Table 7). The index for China as a whole is only 43.0, suggesting that the largest cities in China do not differ much from each other in size and that no single city dominates the urban scene, as indexed by population size. This is not surprising, given the urban history of China as well as the total size of the country. This conclusion is confirmed even if primacy is measured in terms of an 11-city index (38.0) instead of a 4-city index (43.0).[12]

Somewhat surprisingly, the 4-city primacy index for each of the six regions also points to a general absence of primacy conditions, with the sole exception of the East region where Shanghai is so predominant that it produces an index of 111.4. When the index for the East region is based on 11 cities rather than four, however, it drops to 90.5, suggesting that in relation to the larger urban structure, even Shanghai is not exceptionally large. For all other regions, the 4-city primacy index is well below 100. The same conclusions are reached with the 11-city index, as the data in Table 7 show. Overall, these indexes

12. The 11-city primacy index compares the largest city in a given geographic area with the 10 next largest cities. In China it can be used only on the national or regional level, since many provinces do not have 11 cities.

TABLE 7. Primacy indexes, by region and province, 1982

Region and province	4-city primacy index	11-city primacy index
China	43.0	38.0
North Region	66.6	77.9
Beijing	–	
Tianjin	–	
Hebei	53.8	
Shanxi	92.4	
Inner Mongolia	81.9	
Northeast Region	58.6	61.9
Liaoning	102.2	
Jilin	68.4	
Heilongjiang	91.6	
East Region	111.4	90.5
Shanghai	–	
Jiangsu	93.2	
Zhejiang	38.7	
Anhui	57.3	
Fujian	84.3	
Jiangxi	58.0	
Shandong	56.7	
Central-South Region	58.2	58.6
Henan	67.5	
Hubei	309.1	
Hunan	53.4	
Guangdong	160.3	
Guangxi	70.6	
Southwest Region	44.4	47.9
Sichuan	61.8	
Guizhou	110.8	
Yunnan	170.5	
Tibet	–	
Northwest Region	75.5	77.0
Shaanxi	177.7	
Gansu	279.3	
Qinghai	–	
Ningxia	–	
Xinjiang	89.2	

SOURCE: State Statistical Bureau (1983b).

therefore suggest that on a regional and a national level, little evidence of primacy exists, with the possible exception of the East region.

When the level of comparison is reduced to the provinces and autonomous regions, conditions of primacy manifest themselves in selected areas. (The primacy index could not be calculated for Beijing, Tianjin, and Shanghai since each city is equivalent to a province and therefore has no smaller cities within the same political unit. Nor was the index constructed for Tibet, Qinghai, and Ningxia because the nature of the urban structure in these frontier provinces did not lend itself to such calculations.) No evidence of primacy emerges from the data for the provinces in the North, the East, or the Northeast; in the latter, only Liaoning Province shows a slight indication of primacy, but the index of 102.2 does not point to strong primacy. In fact, in most of the provinces in these three regions, the index is considerably below 100. In the eastern provinces of China, including those which are most densely settled, the larger cities apparently do not dominate the urban hierarchy, as judged by size alone. Indeed, the data suggest that these three regions of China may be characterized by an urban hierarchy that conforms closely to the goals that national policies advocate.

In contrast, in the Central-South region and in the two western regions, six of the 11 provinces for which primacy indexes were calculated have indexes above 100, and usually considerably so. Hubei's high index of 309 reflects the dominance of the industrial city and transport junction of Wuhan, which numbered 3.3 million people in 1982. In Guangdong, Guangzhou continues to dominate the urban scene, probably reflecting its importance vis-à-vis Hong Kong and as a port of entry for China. The high primacy rate characterizing the four other provinces is undoubtedly related to their less developed conditions. In the Northwest, Lanzhou in Gansu Province is particularly noteworthy among cities whose population has grown rapidly as a result of efforts to relocate industry from the coastal regions to the inland provinces; it dominates the province with an index of 279. And in Shaanxi Province, the ancient city of Xian has taken on increased importance as a provincial and regional center as reflected in its primacy index of 178.

Previous research on the changing system of Chinese cities (Chang, 1976) has documented that one of the most remarkable features of China's urban development since 1949 has been the rapid growth of

provincial capitals. Based on comparisons of the census enumeration of 1953 and estimates of provincial capital populations in 1970, Chang found that 10 of 25 capital cities of provinces and autonomous regions had more than doubled their populations, and half of the 10 had been tripled. A number of these rapidly growing cities are located in frontier regions; many of the other older capitals had undergone substantial growth as the result of improved linkages to national transportation networks, improvements in infrastructure, and development of heavy and light industries. The net effect of these improvements, Chang observed, was an increase in the urban primacy of many of the provincial-level capital cities in relation to other cities within the province.

In his analysis of the provincial capitals, Chang calculated a 2-city primacy index for 1970, based on estimates of city size for that year, and also made some comparisons with the index of 1949. His evaluation indicated that "primacy declined in well-developed provinces and it increased in less developed provinces" (Chang, 1976:404). In particular, he found that in 1970 three of the four capital cities with a primacy index greater than 10 (i.e., the cities were more than 10 times the size of the second city) were located in inland provinces of the western regions. The three—Lanzhou (Gansu), Xining (Qinghai), and Kunming (Yunnan)—were all newly emerging industrial or transport centers as was the fourth city, Wuhan, which had become a key industrial center at the juncture of the Yangtze and Han Rivers in Hubei Province of the Central-South region. Of these four, only Wuhan had had an index greater than 10 in 1953; by 1970, it was 12.8. Lanzhou's index had increased from 4.7 to 19.3, and Kunming's from 4.4 to 14.7. Overall, for the 23 provinces and autonomous regions for which comparisons could be made between 1953 and 1970, 15 had higher indexes in 1970 than in 1953, and only eight had lower ones. Xining's index was not measurable in 1953 since no second municipality existed in Qinghai Province at that time.

If the 2-city index is calculated for the 25 provincial capitals in 1982 (Tibet was not included in the 1970 analysis), the results show that no city had an index greater than 10, suggesting higher growth rates of smaller cities in China between 1970 and 1982; in fact, the index is lower in 20 of the 25 provinces and autonomous regions that can be compared between 1982 and 1970, and often the differences are considerable. For example, for Lanzhou, which had the highest

index in 1970, it had declined from 19.3 to 7.0; for Wuhan, from 12.8 to 8.7; for Guangzhou, from 8.3 to 3.3. For Xining it decreased from 16.7 to 9.6; its index was the highest of all capitals in 1982. Further attesting to the lower levels of primacy is the fact that the number of capital cities with indexes less than 2.0 increased from nine in 1970 to 15 in 1982. Whereas four capital cities in 1970 were estimated to have indexes below 1.0, indicating they were exceeded in size by another city in the province, this was true of seven capitals in 1982.

While primacy had declined over these 12 years, the newly industrializing inland provinces generally continued to display the highest indexes. In fact, the rank correlation between the primacy indexes in 1970 and 1982 was .70, suggesting comparatively little change in ranking; the major changes, therefore, seem to be the general reduction in the absolute levels of primacy rather than changes in the comparative rankings in primacy conditions among provinces. Interestingly, a similar conclusion emerges from a comparison between the rankings in 1982 with those in 1953; for the 23 provinces and autonomous regions between which comparisons can be made, the rank correlation is .67.

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE URBAN AND RURAL POPULATIONS

The 10 percent sample of the 1982 Census (SSB, 1983b) has made available limited statistics on the demographic and economic characteristics of the populations living in cities, towns, and rural areas of China. These include information on sex and age composition and on the occupational and industrial composition of the labor force. Although the latter are not cross-tabulated by age, they nonetheless provide important insights on urban-rural differences in population composition and the extent to which towns share the same urban characteristics as cities.

Age and sex differentials

Examination of the age distributions (Table 8) reveals a quite marked difference in age composition between urban and rural places, but only minimal differences between the populations living in cities and towns. The much younger age of the rural population is evidenced in a median age of 21.5 years compared with 26.0 for cities and 25.2 for towns. Of the total rural population, 35 percent are less than 15 years of age, reflecting in part the higher fertility that has characterized rural

TABLE 8. % distribution, by age and median ages, by sex, and by urban/rural residence

Age group	Males	Females	Total	Males	Females	Total
	Cities			Towns		
0–4	3.9	3.6	7.5	4.2	3.9	8.1
5–9	4.1	3.9	8.0	4.7	4.3	9.0
10–14	5.4	5.1	10.5	5.9	5.5	11.4
15–19	6.2	5.8	11.9	6.4	6.0	12.4
20–24	5.0	4.7	9.7	4.5	4.2	8.7
25–29	5.7	5.3	11.1	5.5	4.8	10.3
30–34	4.3	3.8	8.1	4.6	3.7	8.3
35–39	3.1	2.8	5.9	3.7	2.7	6.4
40–44	3.0	2.8	5.8	3.5	2.6	6.1
45–49	3.1	2.7	5.9	3.2	2.3	5.5
50–54	2.6	2.2	4.7	2.6	1.8	4.3
55–59	1.9	1.7	3.5	1.7	1.3	3.0
60–64	1.4	1.3	2.7	1.2	1.1	2.3
65–69	1.0	1.0	2.0	0.8	0.9	1.7
70–74	0.6	0.7	1.4	0.6	0.7	1.3
75 & older	0.5	0.8	1.3	0.5	0.8	1.2
Total %	51.8	48.2	100.0	53.5	46.5	100.0
Median age	26.0	26.1	26.0	26.0	24.4	25.2
	Rural			Total PRC		
0–4	5.1	4.8	9.9	4.9	4.6	9.5
5–9	6.0	5.7	11.7	5.7	5.3	11.0
10–14	7.1	6.7	13.7	6.7	6.4	13.1
15–19	6.4	6.2	12.6	6.4	6.1	12.5
20–24	3.5	3.4	6.9	3.8	3.6	7.4
25–29	4.5	4.3	8.8	4.8	4.5	9.2
30–34	3.6	3.4	7.0	3.8	3.5	7.3
35–39	2.7	2.5	5.2	2.8	2.6	5.4
40–44	2.4	2.1	4.6	2.6	2.2	4.8
45–49	2.3	2.1	4.4	2.5	2.2	4.7
50–54	2.0	1.9	3.9	2.2	1.9	4.1
55–59	1.7	1.7	3.4	1.8	1.6	3.4
60–64	1.4	1.4	2.8	1.3	1.4	2.7
65–69	1.0	1.1	2.2	1.0	1.1	2.1
70–74	0.7	0.8	1.5	0.5	0.8	1.4
75 & older	0.6	0.8	1.4	0.5	0.9	1.4
Total %	51.0	48.9	100.0	51.4	48.7	100.0
Median age	21.4	21.7	21.5	23.0	22.9	22.9

SOURCE: State Statistical Bureau (1983b).

compared with urban places in China. By contrast, the equivalent percentage in cities and towns is 26.0 and 28.5 percent, respectively. By age group 15–24, minimal differences are seen between urban and rural locations. However, in the peak labor force ages (25–44) the differences are sharp; whereas rural areas have only one-fourth of their populations concentrated in the lower middle-age group, this is true of 31 percent of the populations living in urban places. This higher concentration of persons of middle ages extends, although to a lesser extent, to the 45–64 age group: Cities have 17 percent of their population in this age range, towns 15 percent, and counties just under 15 percent. In China as a whole, the percentage of the aged population is still low, with just under 5 percent aged 65 and older. The percentage of aged is slightly higher in rural areas than in urban places, and within the urban group it is lowest in the towns.

Overall, therefore, these data suggest that as a combined result of higher fertility in rural places and probably selective movement to urban places–both by those seeking higher educations and by those moving for economic reasons–observable, and, at times, striking differences exist in age composition between urban and rural populations. The differences tend to be minimal between cities and towns, lending support to the conclusion that the populations of towns have taken on some of the demographic characteristics of an urban place.

The age-sex distributions can be used to compare the sex composition of the populations in the three urban-rural categories. According to the 1982 Census, China has an overall sex ratio of 105.5, which varies substantially by age group (Table 9). The 0–4 age group has an excess of males (107.2), which is slightly higher than in most countries. As is generally true, the sex ratio begins to decline with succeeding ages, but contrary to general patterns it does so only until the 20–24 age group when it reaches a low of 103.8, then it rises continuously to a peak of 114 at ages 40–44. The low for the 15–24 age range reflects the omission from the age data of men and women in the armed forces; adjustment (Banister, 1984:Table 1) raises this ratio to about 106. Whether the rising sex ratio beyond age 29 reflects earlier sex-selective differentials in mortality–possibly including the effects of female infanticide and differential health care of men and women–cannot be ascertained here.[13] Following this peak, it resumes the decline, with

13. Ansley Coale (1984) notes the anomalous increase in the sex ratio that characterizes the birth cohorts of about 1940 through 1951–52 and suggests

TABLE 9. Sex ratio of population, by age and urban/rural status

Age group	Cities	Towns	Rural areas	Total (unadjusted for military)	Total (adjusted for military)
0–4	107.0	107.8	107.1	107.2	107.2
5–9	106.8	107.5	106.1	106.2	106.2
10–14	106.8	107.3	106.0	106.1	106.1
15–19	106.8	106.7	102.8	103.5	105.0
20–24	107.2	107.8	102.6	103.8	107.4
25–29	107.6	113.8	105.8	106.6	108.8
30–34	111.6	126.8	105.9	108.2	109.1
35–39	113.1	140.0	108.6	111.3	112.4
40–44	109.1	135.3	113.4	114.2	115.3
45–49	113.0	138.4	109.8	112.2	112.2
50–54	119.6	145.9	107.7	111.8	111.8
55–59	113.1	126.0	104.3	106.6	106.6
60–64	106.3	108.2	98.8	100.3	100.3
65–69	97.1	92.4	90.8	91.7	91.7
70–74	82.8	81.4	81.2	81.4	81.4
75–79	67.4	65.9	68.8	68.4	68.4
80–84	55.6	56.9	57.6	57.3	57.3
85 & older	41.3	44.2	45.2	44.5	44.5
Total	107.6	115.1	104.4	105.5[a]	106.3

a. Military population includes 4,070,763 men and 167,447 women. These have been allocated to ages 15–44. See Banister (1984, Table 1).

the 60–64 age group being the last to have an excess of males over females. Thereafter, the aged population is characterized by a continuous and quite rapid rise in the proportion of females, so that by age 85 and older only 44 males remain for every 100 females. To what extent do the sex ratios in cities, towns, and rural areas follow the same pattern?

The three residence categories of China do not display similar sex ratios, and the differentials are particularly sharp between the towns on the one hand and the cities and rural counties on the other. Overall,

that they experienced higher female than male mortality, contrary to the usual greater viability of females. He also notes the precipitous decline in the proportion of males in the older age groups and suggests that this is attributable to an extraordinary excess of mortality for males at older ages.

the rural counties have the lowest sex ratio, 104.4, followed closely by the cities with 107.6. The number of males in towns is quite excessive as indicated by a sex ratio of 115.1 men per 100 women. The reasons for this become clearer upon examination of the age specific sex ratios. Minimal differences exist among the three residence categories for the age groups under 15. Beginning with age 15, however, and, with rare exception, continuing to age 65–74, the sex ratios in cities are higher than those of the rural counties, although only slightly so up to age 30.[14] Between age 30 and age 70, however, the discrepancy is considerable, with the sole exception of the 40–44 age group. Since it seems unreasonable to assume that the death rates for females in these cohorts are significantly higher in cities than in rural areas, the more likely explanation for the difference is the cumulative effects of sex-selective migration in the age groups associated with entrance into higher education but especially with movement for economic reasons. This interpretation is reinforced by the fact that for age 70 and older the sex ratios are quite similar for the cities and rural areas.

The sex ratios of the population living in towns, the other component of the urban population, are also above those of the rural population in age groups 15–69, and the differences between town and village become quite sharp. From a fairly close similarity at age 10–14, 107.3 compared with 106.0 in villages, the ratio rises to 140.0 for the age group 35–39 in towns, compared with only 108.6 for rural areas, and remains at about this high level through the 50–54 age group. Thereafter the sex ratios in towns begin to decline, even while remaining well above those of the rural counties for ages 55–64. It is only by age group 65–69 that minimal differences exist between towns and rural counties, and not before age 70 that the cities, towns, and rural areas closely resemble each other in sex composition. But between ages 25 and 59, the sex ratios for the town population are well above those of the comparable 5-year age groups in cities. In fact, for most of these age groups, the sex ratios of the cities more closely resemble the rural areas than the towns.

The particularly high sex ratios in the age groups 15–59 for the towns strongly suggests that these smaller urban places have been particularly attractive to male migrants from rural areas. It may be

14. The ratios for cities in the 15–24 age group would be slightly higher if an adjustment was made for the military.

that the men have been allowed to move into these locations in response to demands for their services, while their wives and children have been denied urban registration and have therefore remained in the communes. Some men with urban (town) registration may also have married women from communes who were unable to move to the town, although this is probably not a common enough situation to explain the quite distorted sex ratios. When data on sex by age and marital status become available, further evaluation of these patterns seems appropriate. In the meantime, some insight might be gained by examination of the data on labor force, although regrettably these are not available by age, only by sex.

Urban/rural differences in the labor force

In view of China's efforts toward industrial development in cities and the development of small towns and rural areas, considerable interest focuses on the way in which these efforts have manifested themselves in the industrial and occupational composition of the labor force of cities, towns, and rural areas. Particularly relevant is the extent to which urbanization and rural development in China are associated with a decline in the numbers engaged in agriculture relative to the numbers in manufacture (United Nations, 1980:61).

Data from earlier censuses do not allow rural/urban comparisons, since the 1953 Census did not collect information on occupation or industry and the 1964 Census did not publish the data it had collected on occupation. Therefore, only the 1982 Census is available for a comparison of urban/rural differentials in occupational and industrial composition. Thus, any attempt to assess the impact of development on changing occupational and industrial composition must be approached cross-sectionally rather than longitudinally, operating under the assumption that cities are the most developed locations, towns are the next most developed, and villages (rural areas) are the least developed.

Also related to modernization and development in China is the extent and character of female employment and how they differ between urban and rural places. The assumption is that in rural areas and small towns, traditional values still strongly influence people's behavior, so that males are favored more strongly in rural areas than in cities in school recruitment, in the recruitment of nonagricultural labor-force, and especially in the selection of administrative leaders and managers. On this basis, it is expected that in all industrial and

occupational categories, the sex ratios in employment are related to the urban character of places; that is, higher ratios of employed males to employed females would characterize rural areas compared to the cities.

According to the State Statistical Bureau (1983a:576–77), the labor force consists of all those who are employed and receive payment for their work or derive their income from business. This includes workers and staff members on the payroll of state or collective enterprises and those working in government agencies and people's organizations, individual workers, workers of collective-owned units, and commune members who regularly work and receive income therefrom. In the census, each individual 15 and older was classified as employed if he or she had a regular job on June 30, 1982, or a temporary job on that date, if it involved work for at least 16 days in June. People who had regular jobs but were not at their posts due to illness, holiday leave, study leave, or enterprise adjustment were enumerated as employed at their original work place (Population Census Leading Group, n.d.:23–25).

Based on this definition, the census presents data on both the occupational and the industrial composition of the labor force, subdivided by sex. In all, the resulting tabulations show 521.4 million–293.5 million men and 227.8 million women–to be in the labor force. Thus, 86.0 percent of all men age 15 and older and 70.1 percent of all women are labor force participants.[15]

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15. The size of the labor force revealed by the census deviates substantially from that reported by the State Statistical Bureau for year-end 1981 and year-end 1982, which indicate 432.8 and 447.1 million in the labor force, respectively, equivalent to a July 1 average of 439.9 million. The 81.5 million discrepancy between this average and the 521.4 million reported by the census for June 30, 1982, suggests that quite different criteria were employed by the census in defining labor force participation. The differences extend to both urban and rural areas and to types of employment, so that the actual distributions by industry vary minimally between the two sets of data. Judith Banister (1984) has suggested several reasons for the differences, including coverage by the census of agricultural seasonal laborers (the census was taken in the summer), omission in the statistical records of temporary workers and of persons not officially recognized as workers by brigades or industrial units, and lack of clarity in the census of the category "non-working," especially for rural people, thereby leading to them reporting themselves as farmers or nonagricultural laborers. Until fuller information to assess the discrepancies becomes available, the reasons must remain speculative. Since the extent of the discrepancies may vary for urban and rural places (also not fully ascertainable), some caution

The census data point to differential rates of labor force participation in urban and rural places. In cities and towns, the number reported as employed amounted to 76.0 and 74.4 percent, respectively, of the population 15 years and older, but in the rural counties, the percentage reached 79.0 percent. Although the basic patterns were similar for men and women, the levels of participation differed. In cities and towns, about 83 percent of the men were reported with occupations, compared to only 68.6 and 64.6 percent of the women. In rural areas, the corresponding percentages were 87.0 for men and 70.8 for women. Lower percentages of women than men are therefore economically active in all places, and the sex differences in rates of participation are greatest, both in absolute and relative terms, for towns. Equally noteworthy are the lower labor force participation rates in both cities and towns compared to those in rural places. In towns and cities the rates for men are very similar; for women the rate for town residents is 4 percentage points below that of cities, suggesting lesser job opportunities for women in these smaller urban places. The overall close similarity in the general pattern between cities and towns again points to the underlying urban character of the towns.

The higher rates for both men and women in rural areas undoubtedly reflect the greater tendency of peasants to continue working beyond the official retirement ages of 60 for men and 55 for women. These differences, in turn, may relate to the fact that pension systems had not been institutionalized for peasants to any great degree by 1982 but were widespread for the urban labor force. Unfortunately, the census data on employment are not published separately by age for urban and rural places so that further testing of the reasons for the rural-urban differentials in participation rates is not feasible.

Before proceeding to comparisons of sex differences in labor force composition, attention turns first to urban-rural differences in the industrial and occupational composition of the labor force as a whole. Since this evaluation is only a small part of the present review of urbanization in China, only limited use will be made of the detailed data available from the census. In the published statistics, the eight major occupation groups are subdivided into 64 subgroups, and the 15 industrial categories are subdivided into 57 subgroups. This report will

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must be used in considering the patterns of employment for cities, towns, and rural places.

make use only of the major occupation categories, and has collapsed the industrial designations into 10 major categories.

Industrial Distribution of the Labor Force

According to the distribution of the employed population by industry for the urban and rural populations (Table 10), China is still largely a rural, agricultural nation. Three-quarters of its employed population is engaged in agriculture. Just less than 14 percent of the labor force is in industrial work and the remaining 12 percent is distributed among the balance of the other eight industrial categories. Most of these are in commerce, in science, education, and health care, and, to a lesser extent, in construction, transport and communication, and administration.

Since a high proportion of China's population is rural, it is not surprising that the distribution by industry for the rural labor force very closely replicates the national percentages. Almost nine of every 10 rural employed are engaged in agriculture. Of the remainder, half (6 percent of the labor force) are industrial workers.

Among the city labor force, 42 percent are engaged in industrial work and a substantial number, ranging between 5 and 7 percent, are in construction, transport and communication, commerce, and science, education, and health care. Surprisingly, 24 percent of the city labor force is reported as engaged in agriculture. One of the reasons for the high proportion of agricultural labor in the city population is the overbounding of a number of the larger cities, even exclusive of the suburban counties. As a result, some inner city districts include communes in which agricultural activities predominate.

Towns account for only 6 percent of China's labor force, but they provide an important link between the city and rural areas. Reflecting this role, the industrial structure of the towns' labor force is quite distinct from that of the city and the rural counties. Just more than one-third of the labor force are industrial workers, a proportion much closer to the city industrial distribution than to the rural. Agriculture accounts for 21 percent, which suggests that towns have a "more urban" industrial structure than cities. Again, the pattern also reflects the more restricted town boundaries, so that primarily agricultural areas cannot as readily be incorporated into towns. Peasants in agriculture are therefore included in the rural populations which constitute the town's hinterlands. On the other hand, the percentage of the labor

TABLE 10. Distribution of the employed population, by industry and urban/rural status, 1982

Industrial categories	Distribution by urban/rural status				Distribution by industry				
								Total	
	Cities	Towns	Rural areas	Total PRC	Cities	Towns	Rural areas	%	Number (1,000s)
Agriculture[a]	24.5	20.9	87.8	73.7	5.2	1.8	93.0	100.0	384,339
Industry[b]	42.4	37.3	6.1	13.7	48.2	16.9	34.5	100.0	71,451
Construction	6.9	5.3	1.1	2.2	48.6	14.7	36.8	100.0	11,711
Transport and communication	5.7	6.8	0.5	1.7	51.9	24.5	23.6	100.0	9,019
Commerce[c]	7.2	12.1	1.4	3.0	38.1	25.5	36.5	100.0	15,422
Management[d]	1.8	1.6	0.1	0.5	59.1	20.7	20.2	100.0	2,455
Science, education, and health care[e]	7.0	7.8	2.3	3.4	32.4	14.2	53.4	100.0	17,697
Finance and insurance	0.4	0.9	0.1	0.2	28.5	27.8	43.6	100.0	1,022
Administration[f]	3.9	7.2	0.6	1.5	40.1	29.3	30.7	100.0	8,014
Other	0.1	0.1	—	—	47.2	16.1	36.7	100.0	248
Total %	100.0	100.0	100.0	100.0	15.7	6.2	78.1	100.0	
Total number (1,000s)	81,762	32,424	407,192	521,378					521,378

SOURCE: State Statistical Bureau (1983b:Table 34).

a. Agriculture includes animal husbandry, forestry, and fishing.

b. Industry includes manufacturing, mining, and production of power, gas, and pipewater.

c. Commerce includes trade, storage, and catering.

d. Management refers to residential buildings and public utilities.

e. Science, education, and health care includes culture and the arts, sport, scientific research, public health, and social welfare.

f. Administration refers to government agencies, party committees, and people's organizations.

force engaged in every other industrial category, with the exception of management and construction, is greater than that characterizing the city.

The important role that towns play in the national and local economies is suggested by comparing the percentage of the labor force engaged in particular industrial sectors who are residents of towns with the percentage that the town labor force constitutes of China's total employed population. Although China's towns encompass only 6 percent of the labor force, they account for one-quarter or more of all Chinese engaged in transport and communication, in commerce, in finance and insurance, and in administration. They also account for as many as 20 percent of those engaged in management and about 15 percent of those in construction and industry. These data suggest that Chinese towns are beginning to assume the importance which government policy has assigned to them in the urbanization and modernization process.

At the same time, the statistics on the rural population also provide strong evidence of change and development. While agricultural activity predominates, with 93 percent of all persons engaged in agriculture in China residing in rural areas, 30 percent or more of all resident workers engaged in industry, construction, commerce, finance and insurance, administration, and science, education, and health care reside in rural areas. Rural areas thus account for a substantial part of nonagricultural activities in China. This finding is supported by the report that in 1983 the value of industrial production of communes and production brigades amounted to 75.7 billion yuan, equal to 12 percent of total industrial production (*China Daily*, September 12, 1984). More than half of all workers engaged in science, education, and health care are located in rural areas; this further points to the efforts being undertaken to improve the quality of life in rural China, although rural-urban differences still remain substantial. Together with the developments noted for small towns, these features of the labor force of rural areas suggest that decentralization of nonagricultural activities had already occurred to a considerable degree by mid-1982 and that these developments have the potential of strongly affecting the urbanization situation in the future.

Occupational Distributions

The data from the census on the occupational distribution of the employed population (Table 11) lend weight to the conclusions reached on the basis of the examination of the distribution by industry. In rural areas, almost nine of every 10 persons are engaged in agricultural work, and most of the remainder are either workers in production and transport or in professional work. The remaining small percentage are distributed among the balance of the tertiary occupational groups—administrators, clerical, and trade and service workers. On the other hand, in cities the largest single category consists of production and transport workers, with almost half so employed; they are followed by agricultural laborers, who account for almost one-fourth of the city labor force; professionals rank next in frequency, constituting just more than 10 percent of the total. The remaining one-fifth of the labor force is distributed almost equally among the other four tertiary occupational categories, with service workers somewhat more prominent.

Virtually the same order of prevalence characterizes the occupational distribution for towns. Production and transport workers are the most numerous group, encompassing four of 10 in the labor force. As in the cities, these were followed in relative importance by agricultural workers, who account for one-fifth of the total. The balance of the labor force is represented by the diverse service (tertiary) categories of which professional workers constitute 13 percent, the largest group. As for the industrial distribution, these data on occupations strongly suggest the urban character of the population of towns and the role of the town as a center of both nonagricultural activities and service functions for the outlying areas.

This conclusion is given additional support when the occupational composition is viewed from the perspective of the distribution of each occupational category in China across cities, towns, and rural areas (Table 11). The data point again to the quite widespread distribution of occupations, with the exception of agricultural laborers of whom 93 percent are residents of rural areas. By contrast, less than half of all production workers live in cities, more than one-third are rural residents, and as many as 16 percent live in towns. Similarly, cities account for four of every 10 of those engaged in various broadly defined service functions, but rural areas also account for 25–40 percent

TABLE 11. Distribution of the employed population, by occupation and urban/rural status, 1982

Occupational categories	Distribution by urban/rural status				Distribution by occupation				
	Cities	Towns	Rural areas	Total PRC	Cities	Towns	Rural areas	Total %	Total Number (1,000s)
Agricultural laborer	23.4	20.0	85.9	72.0	5.1	1.7	93.2	100.0	375,500
Production and transport worker	45.7	41.8	7.9	16.0	44.8	16.3	38.9	100.0	83,204
Professional	11.3	13.1	3.2	5.1	35.1	16.0	48.9	100.0	26,443
Leader	4.2	5.7	0.7	1.6	42.2	23.1	34.5	100.0	8,084
Clerical worker	4.0	5.2	0.4	1.3	48.9	25.2	25.9	100.0	6,767
Trade	4.2	6.8	0.9	1.8	36.5	23.5	40.0	100.0	9,428
Service	6.8	7.0	0.9	2.2	48.8	19.9	31.3	100.0	11,472
Other	0.3	0.3	—	—	57.2	20.9	21.9	100.0	480
Total %	100.0	100.0	100.0	100.0	15.7	6.2	78.1	100.0	
Total number (1,000s)	81,762	32,424	407,192	521,378					521,378

SOURCE: State Statistical Bureau (1983b:Table 35).

and towns account for the remaining 20–25 percent. This wide spread of service occupations throughout the three residential categories characterizes the subcategories of the broadly defined service group as well.

Sex Differentials in the Labor Force Structure

The foregoing analysis has not disaggregated the labor force by sex. Sex differentials are discussed first by examining the sex ratio for the industrial and occupational categories, by urban-rural status. As noted earlier, participation of women in the labor force is expected to increase as the level of urbanization rises; that is, to be higher in towns than in rural areas and higher in cities than in towns. Although the data do not support such an expectation (Table 12) for the labor force as a whole, the pattern does appear when each industrial/occupational category is considered separately.

Males clearly and substantially outnumber females in the total labor force in all three residential categories; yet the sex ratios for the city and the rural labor force are quite similar, with approximately 130 men for every 100 women. The differential is greater for towns, with 151 men for every 100 women. The excessive number of men in towns suggests strongly that the nature of industrial, commercial, and service work opportunities in these smaller urban places is still heavily sex-selective. On the other hand, the lower sex ratio in rural areas, as the following discussion documents, reflects the heavy participation of women in agriculture.

The sex ratios are by no means uniform for the different industrial and occupational categories. For the breakdown by industry, the closest similarity among the residence categories characterizes agriculture, where the sex ratios vary only between 107 and 120, suggesting that agricultural work is more equally balanced between men and women than is work in other types of activities. By contrast, in construction, the ratio rises from 279.7 in the city and 342.9 in town, to a highly distorted 1,152.3 in rural areas. Quite sharp differentials also characterize administration and management, as well as a number of the other categories.

In virtually all the comparisons among the three residence groups, the sex ratios in towns more closely resemble those of the city population than they do the rural, again reinforcing the conclusion that the towns are more urban in character than they are rural. Moreover, in all

TABLE 12. Sex ratios for industrial and occupational categories, by urban/rural status, 1982

	Cities	Towns	Rural
Industry[a]			
Agriculture	107.5	120.1	116.7
Industry	125.7	139.4	181.6
Construction	279.7	342.9	1,152.3
Transport and communication	279.2	335.7	583.6
Commerce	89.2	108.6	232.0
Management	98.4	100.8	335.1
Science, education, and health	103.6	112.6	239.6
Finance and insurance	125.6	173.1	374.5
Administration	247.6	434.6	736.1
Other	172.1	122.2	213.8
Total	130.3	151.2	126.9
Occupation			
Agricultural laborer	102.9	115.6	114.3
Production and transport worker	154.5	171.2	229.2
Professional	101.6	117.2	264.7
Leader	556.4	935.6	1,905.0
Clerical worker	213.4	370.2	4,881.4
Trade	77.7	83.3	214.3
Service	75.9	95.8	210.9
Other	124.6	138.1	200.0
Total	130.3	151.2	126.9

SOURCE: State Statistical Bureau (1983b:Tables 34 and 35).

a. For explanation of industrial categories, see Table 10.

industrial categories except agriculture and the residual "other," the lowest sex ratios characterize cities, followed by towns, with rural areas having the highest ratios—usually far in excess of those of cities and towns. The hypothesized relation between type of residence and sex ratio is therefore generally supported by these data; participation of women in the labor force increases as the urban character of place increases.

Examination of the sex ratios of the different occupational groups points to a similar conclusion. For most occupational groups, the sex ratios of rural areas are at least twice as high as those of the city. For some the differential is extremely sharp, especially in leadership and

clerical positions. For example, the sex ratio among clerical workers rises from 213 males per 100 females in cities and 370 in towns to 4,881 in rural areas; that of leaders goes from 556 and 935 to 1,905, respectively. By contrast, industrial laborers have a sex ratio of 154 in cities, compared to 229 in rural areas.

While the high sex ratio in the industrial category, construction, is understandable given the considerable physical strength that is needed for work in this sector, the extreme differences that characterize administrative positions are more difficult to explain except in terms of cultural traditions and the low proportions of females with higher education. These historical patterns of sex discrimination in education and political affairs probably result in the present sex distribution in the relevant occupations. Government efforts to emphasize the promotion of women in public affairs and other administrative activities and the growing equality in education should lead to a narrowing of these differentials in future years. Yet, as for the distribution by industry, that by occupation suggests that one important by-product of urbanization is a more balanced sex ratio of the labor force.

A comparison of the percentage distribution of men and women in agricultural and nonagricultural activities (Tables 13 and 14) confirms some general observations made by the United Nations (1980) analysis of the sex differentials in employment patterns. The report argued that women tend to be heavily involved in agriculture where agricultural technology involves considerable manual labor. Such differences by sex are noted in China, where much of agriculture still relies largely on manual labor. In rural areas, 92 percent of all working women are in agriculture compared with 85 percent of men; in the combined city/town urban places, 26 percent of women worked in agriculture, compared with only 21 percent of men (Table 13).

The U.N. also concluded that "at low levels of development, the female share in industry is higher in the rural areas than in the urban areas, while the reverse is true at higher levels" (1980:87). The Chinese statistics tend to support the first part of this conclusion; the second cannot be tested. In rural China, among nonagricultural workers, 61 percent of the women and only 45 percent of the men were engaged in manufacturing. In urban areas, too, the proportion of women in manufacturing exceeded that of men, but the differential was narrower, 57 compared to 51 percent. Although the percentage of nonagricultural workers in industry among both men and women in

TABLE 13. Distribution of the employed population, by industry, urban/rural status, and sex, 1982

Industrial categories	Males				Females			
	Cities	Towns	Rural	Total PRC	Cities	Towns	Rural	Total PRC
Distribution by industry								
Agriculture	22.4	19.0	84.5	70.4	27.2	23.9	92.0	78.0
Industry	41.8	36.1	7.0	14.4	43.3	39.1	4.9	12.8
Construction	9.0	6.8	1.7	3.2	4.2	3.0	0.2	1.0
Transport and communication	7.5	8.7	0.8	2.4	3.5	3.9	0.2	0.9
Commerce	6.0	10.5	1.7	3.0	8.7	14.6	0.9	2.9
Management	1.6	1.3	0.2	0.5	2.1	2.0	0.1	0.5
Science, education, and health care	6.3	6.8	2.9	3.7	7.9	9.2	1.5	3.0
Finance and insurance	0.3	0.9	0.2	0.2	0.4	0.8	0.1	0.1
Administration	4.9	9.8	1.0	2.1	2.6	3.4	0.2	0.7
Other	0.2	0.1	0.03	0.1	0.1	0.1	0.01	0.03
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Distribution by urban/rural status								
Agriculture	5.0	1.8	93.2	100.0	5.4	1.7	92.9	100.0
Industry	45.7	16.7	37.6	100.0	52.7	17.3	30.0	100.0
Construction	44.1	14.1	41.8	100.0	67.1	17.5	15.4	100.0
Transport and communication	49.5	24.4	26.1	100.0	60.2	24.7	15.1	100.0
Commerce	31.7	23.4	44.9	100.0	46.4	28.2	25.4	100.0
Management	53.0	18.8	28.2	100.0	66.6	23.0	10.4	100.0
Science, education, and health care	26.7	12.2	61.1	100.0	41.5	17.5	41.0	100.0
Finance and insurance	23.3	26.0	50.7	100.0	39.4	31.8	28.8	100.0
Administration	35.9	30.0	34.1	100.0	55.7	26.5	17.8	100.0
Other	46.9	13.9	39.2	100.0	47.8	20.0	32.2	100.0
Total	15.8	6.6	77.6	100.0	15.6	5.7	78.7	100.0

SOURCE: State Statistical Bureau (1983b).

a. For explanation of industrial categories, see Table 10.

TABLE 14. Distribution of the employed population, by occupation, urban/rural status, and sex, 1982

Occupational categories	Males				Females			
	Cities	Towns	Rural areas	Total PRC	Cities	Towns	Rural areas	Total PRC
Distribution by occupation								
Agricultural laborer	21.0	17.8	81.9	68.1	26.6	23.3	91.0	77.1
Production and transport worker	49.0	43.8	9.9	18.3	41.1	38.7	5.5	13.0
Professional	10.1	11.7	4.1	5.6	13.0	15.1	2.0	4.4
Leader	6.3	8.6	1.2	2.5	1.5	1.4	0.1	0.4
Clerical worker	4.9	6.9	0.7	1.7	3.0	2.8	0.1	0.7
Trade	3.2	5.2	1.1	1.7	5.5	9.4	0.7	1.9
Service	5.2	5.7	1.1	2.0	9.0	9.0	0.6	2.4
Other	0.3	0.3	0.03	0.1	0.3	0.3	0.02	0.1
Total number	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Distribution by urban/rural status								
Agricultural laborer	4.9	1.7	93.4	100.0	5.4	1.7	92.9	100.0
Production and transport worker	42.2	15.9	41.9	100.0	49.6	17.0	33.4	100.0
Professional	28.6	14.0	57.4	100.0	45.5	19.3	35.2	100.0
Leader	40.2	23.2	36.6	100.0	62.1	21.4	16.5	100.0
Clerical worker	44.1	26.2	29.7	100.0	63.8	21.9	14.3	100.0
Trade	29.6	19.8	50.6	100.0	44.5	27.9	27.6	100.0
Service	40.5	18.7	40.8	100.0	57.8	21.2	21.0	100.0
Other	54.3	20.7	25.0	100.0	61.3	21.1	17.6	100.0
Total number	15.8	6.6	77.6	100.0	15.6	5.7	78.7	100.0

towns was somewhat lower than in cities, in both urban categories relatively more women than men were in industry, again supporting the pattern noted by the United Nations.

In addition to industrial workers, only two other nonagricultural categories–science/education/health care and trade–involve any noteworthy percentage of rural women; together they account for almost one-third of the nonagricultural labor force. All other nonagricultural categories combined encompass less than 10 percent of women employed in nonagricultural work. Rural men closely resemble rural women in the percentages of the nonagricultural workers found in the broad category encompassed by science/education/health care and in commerce, but a notable percentage (one-fifth) are also found in construction, administration, and transport/communication.

Among urban women, after industry, science/education/health care and commerce account for most of the nonagricultural employment, but construction and transport/communication account for 5 percent or more of nonagricultural employment. The dispersion among nonagricultural workers is therefore noticeably greater in urban places than in rural areas. For men, the nonagricultural distribution is more equitable among the construction, transport/communication, commerce, science/education/health care, and administrative categories, with between 8 and 11 percent in each. All of these were substantially below employment in industry, which accounted for just more than half of the nonagricultural labor force. As was true of the female labor force, the differences between cities and towns tended to be small, except for a few categories. The percentage in commerce was greater in towns than cities, as was the higher concentration in administration. On the other hand, fewer men in towns than in cities were engaged in construction, undoubtedly reflecting the proportionally greater amount of construction characterizing China's cities.

The distributions of men and women by occupation for the three residence categories (Table 14) indicates that in rural areas, both male and female nonagricultural workers are heavily concentrated among production and transport workers and, to a lesser extent, as professionals. In urban places, production constitutes by far the major occupational category for men and women. Among the remaining nonagricultural occupations, professionals are next in importance, somewhat more for women than men. Service workers and trade workers follow in importance for women; for men, "leaders" is the third most

prominent nonagricultural category, followed by clerical workers and service workers.

Again, as for the industrial distributions, the differences between city and town are generally not great. The most striking difference for women is the considerably higher percentage of town residents, compared with city dwellers, in trade. For men, the greatest relative differences characterize the leader and clerical worker occupations, with proportionally more of each in towns than in cities. Lower percentages of women and men are employed as agricultural workers and production workers in towns than in cities.

As previous analysis has suggested, these data, too, indicate that towns function, although on a much lower level than cities, as points of concentration for the broad range of economic, administrative, and social activities that are associated with urban places. Concurrently, the data also point to a noteworthy degree of such activity in rural areas. Earlier discussion has indicated that a growing number of rural residents supplement their agricultural work with activities involving both nonagricultural work in rural places and travel to towns and cities to engage in trade and service work. The evidence of nonagricultural activity documented by the census data therefore reflects only part of the picture. But it will take other types of data to assess the situation completely.

Literacy status by residence category

Educational differences may still be an important factor in accounting for both sex differences in occupational composition and differences between the occupational composition of urban and rural places; this is suggested by the limited information available from the 10 percent sample of the 1982 Census describing the literacy status of the population by age, sex, and urban/rural residence. Unfortunately, these statistics aggregate towns with the rural counties, so only the cities can be identified as a distinct urban residence category. Sharp differences exist between cities and towns/counties and between men and women (Table 15). For males 12 and older, only 9 percent living in cities were classified as illiterate or semiliterate, but 21 percent of those living in towns and counties were so classified. For women, the level of illiteracy was much higher in both locations, 24.6 and 49.1 percent, respectively, but the magnitude of the differential in illiteracy,

TABLE 15. % illiterate and semiliterate, by age, sex, and urban/rural status,[a] 1982

	Males			Females		
Age group	Cities	Towns and rural areas	Total	Cities	Towns and rural areas	Total
12–14	1.8	5.8	5.3	3.4	16.1	14.6
15–19	1.4	4.7	4.2	3.2	16.6	14.7
20–24	1.6	6.7	5.7	4.9	27.5	23.3
25–29	2.7	11.0	9.6	9.7	41.7	36.2
30–34	4.2	15.0	13.2	12.7	45.6	40.4
35–39	5.0	15.9	14.2	15.3	48.7	43.4
40–44	8.4	25.3	22.4	24.3	64.7	57.5
45–49	13.1	36.5	32.3	42.6	81.4	74.5
50–54	18.5	45.2	40.6	59.2	90.2	85.2
55–59	24.4	51.6	47.4	69.0	93.3	89.8
60 & older	40.0	64.4	60.9	85.1	97.1	95.5
Total	8.9	21.1	19.1	24.6	49.1	45.3

SOURCE: State Statistical Bureau (1983b).

a. Towns and counties combined.

about 1:2 between cities and towns/counties, was not very different from that characterizing males.

A key factor in these differentials is age. Among males in cities, illiteracy falls below 10 percent for all those younger than 45. For men in rural areas, however, all age groups have higher illiteracy levels than city males, and the level is below 10 percent only for those younger than 25. By contrast, illiteracy in cities reaches as high as 40 percent only for males 60 and older, but it reaches this level at age 50 in towns/counties and then rises above 60 percent for those 60 and older.

In cities, all age groups of females have higher illiteracy rates than the corresponding age groups of males, and the differentials are quite substantial. In the cities, only females younger than age 30 have illiteracy rates below 10 percent, and the level exceeds 40 percent for those 45 and older. In towns and rural areas, not even the youngest age group has illiteracy levels of less than 10 percent, and the level rises from more than one-fourth of those 20–24 to about half of those in the 35–39 age group and to 90 percent or more of those age 50 and

older. Thus, even while urban residence contributes substantially to reductions in illiteracy, only among the younger groups are the problems minimal. These sharp city versus town/county differentials in literacy stress the role of the city as a center of modernization for both men and women. Concurrently, the sex differences within both the city and the other residence group point to the differential access which women have had to education in both urban and rural places. These differences in turn help to explain some of the earlier noted residential differentials in occupation. The significant decline in illiteracy among the younger age segments, especially in cities, suggests also the key role that urbanization and the spread of urban values to rural areas can play in raising the quality of life.

DISCUSSION

The concerted efforts of the Chinese government to control population growth through its one-child family policy has understandably received worldwide attention. Less well known outside China is the considerable attention given by Chinese government officials at all levels to problems related to the rural-urban population distribution, to the urban growth rates, and to the relations between employment opportunities and rural and urban development. These concerns have led to the emergence of a clearly and firmly articulated policy regarding population movement and the distribution of population between rural and urban places and among urban places of different size.

China's officials consider efforts in these areas, like those in fertility control, to be of critical significance for the future development and modernization of the nation. From an international perspective, the efforts to control population distribution and to achieve orderly urban growth merit close monitoring and evaluation for the lessons they may provide for other developing countries. To the extent that many developing countries have rated problems of population distribution even higher than those of population growth, China's experiences should be of particular interest. They may provide insights on ways to avoid some of the negative consequences of too rapid urban growth at the same time that the benefits of urbanization for the overall development process and the absorption of surplus rural labor can be realized.

The availability of data from the 1982 Chinese Census has provided a unique opportunity to assess in some depth the patterns of urbaniza-

tion in China and the changes that have occurred since the Census of 1953. This analysis has documented that in the three and a half decades since establishment of the People's Republic, the urbanization level has risen slowly, from 10.6 percent of the population being urban in 1949 to 20.6 percent in 1982. Moreover, despite some changes in the urban hierarchy and some evidence of success in control of big city growth, almost two-thirds of the total urban population remains concentrated in big cities (500,000 and more) and almost 40 percent live in metropolises of more than 1 million. In fact, with 38 such metropolises, China has more million-plus cities than any other country of the world, just as its 1982 urban population of 206 million exceeds that of all other countries of the world; indeed, despite its low percentage of China's total population, China's urban residents are more numerous than the total populations living in any country of the world except India, the Soviet Union, and the United States. The Chinese situation is particularly challenging because, concurrently, about 800 million people still live in rural areas and are largely engaged in agricultural activities. This means that the concerted efforts now in process to modernize and develop the country must, sooner or later, involve the absorption of several hundred million more rural people into nonagricultural activities and possibly into urban places. China's urban population also remains imbalanced in its geographic distribution, although the extent of this imbalance has diminished some through efforts to achieve higher rates of industrialization and urbanization and city development in the inland provinces.

For many of the 35 years since the establishment of the People's Republic, smaller cities and towns did not fare well; inadequate production of rural commercial products meant that the functions of small urban places as bridges between larger urban centers and rural areas were generally curtailed. Residents of many smaller places moved to big or medium-sized cities; other town residents joined communes. Since 1980, however, Chinese policy makers see these smaller places as playing a key role in the future urbanization of China as well as in overall rural development (Fei, 1984). These areas are increasingly being looked to both as potentially absorbing the vast surplus rural labor that is developing and as incipient urban centers that will provide alternative locations for industry and commerce. As such, these smaller places are thereby expected to relieve the pressure on larger cities by providing urban amenities to rural residents who might

otherwise seek these attractions by migrating to cities and by also providing job opportunities to increasing numbers of rural residents who will continue to live in rural areas, sometimes functioning partly as peasants while commuting to small towns and cities to work in private, collective, or state-owned industry and commerce.

The limited evidence already available from the 1982 Census on the characteristics of the population living in the 2,664 towns of China suggests that these places have already assumed an urban character and that they are likely to play a key role in China's future urbanization. The basic urbanization policy, adopted in 1980, calls for strict control of the expansion of big cities, rational development of the medium-sized ones, and vigorous efforts to build up small cities and towns. Such a policy is premised on the belief that the close linkage of industry and agriculture in smaller cities and towns will allow fuller use of local natural resources, raw materials, and manpower. Thus, they are expected to absorb the surplus rural labor force resulting from the combined effects of population growth and the introduction of the responsibility system in agriculture.

Local industry and workshops operated by communes and brigades and small private enterprises are seen as providing the operative mechanism in small town development. In some areas, the government gives direct help to peasants to enable them to make the transition from agricultural to nonagricultural activities. Such help includes financial assistance, provision of raw materials, and technical training. Peasants may obtain permits to become specialists in such service activities as tailors, carpenters, and blacksmiths, and then to hire apprentices. Others may be given permission to open shops or operate small factories, or to purchase tractors, carts, or boats for transportation. Technically qualified peasants may be allowed to operate nurseries, bookshops, or clinics and are offered technical guidance to enhance the quality of their activities. These private economic activities are a drastic break with earlier restrictions. Accordingly, reports indicate, the government seeks to provide legal protection and adequate publicity to the new policy as a way of ensuring that peasants are not deterred from engaging in such activities out of fear of being stigmatized by fellow peasants as being "out-of-line."

The policy stress placed on the potential value of stronger linkages between rural and small urban places and the broader networks into which such places fit is evidenced in the Circular of the Communist

Party of China Central Committee, issued early in 1984 as Document No. 1 (*People's Daily*, January 20, 1984) on the topic of rural work. It called for various measures to improve the infrastructure for commodity circulation, including better provision of storage facilities, warehouses, transportation, and communication; it also recognized that big and medium-sized cities play a key role in rural development by providing free markets for peasants, by offering sites for wholesale markets for farm produce and sideline products, and by becoming sites where trade centers might be created.

Concurrently, this key document recognizes that with the development of greater labor divisions in rural areas, many more people will withdraw from farming to engage in sideline activities, such as forestry, fishing, and animal husbandry, and will also transfer into industry and commerce in small towns. As the document phrased it, "If we could not change the situation of 800 million people engaged in farming, peasants would not be well off, the country could not prosper and be strong, and the four modernizations would not be realized."

The document also recognizes existing commune- and brigade-run enterprises as pillars of the rural economy, often closely linked to large factories in cities. In particular, the document envisages rural industry as centralized in towns to take advantage of economies with respect to energy use, storage costs, transportation, water needs, sewage disposal, and other infrastructure. Such concentration is assumed to also serve as an impetus for providing the rural population with improved cultural, educational, and service undertakings by making towns the economic and cultural centers of rural areas.

Perhaps the strongest evidence both of the emphasis placed on development of small towns as alternatives to further growth in large cities and of their role in rural development, is the provision in the document that peasants will be allowed on an experimental basis to settle in towns to engage in industry, business, and service trade, providing they make their own grain arrangements (presumably mainly with the communes where they have been members) and do not become dependent on state supplies. The policy implies that peasants would be allowed to build homes in the towns, although they would not have permanent registration there; urban residence might be terminated if conditions should change such that continued peasant residence burdened the town's ability to provide jobs, housing and grain supplies. Anticipating such developments, the document urges towns

to plan for both short- and long-term construction and in doing so, to use land sparingly. Clearly, the recent developments in rural areas and the very substantial peasant exodus out of agriculture into industrial, commercial, and service work has given impetus to this emphasis on the town as a place of residence and as a link in the rural-urban network.

These links have been strengthened even further by a document released by the State Council in October 1984 (*People's Daily*, October 22, 1984) that stipulates that peasants engaged in nonagricultural work may obtain town registration in towns at the commune level. In doing so, the peasants must return their assigned land to the production brigade, but they reserve the right to return to their place of origin. The same document urges authorities in commune towns to make building materials and rentals conveniently available.

Policy makers anticipate that linkages to larger urban places will be reinforced by these developments. One such link is created through the tie-in of small rural factories with large urban plants. The small workshops produce component parts for the larger factories, thereby obviating the need for more urban construction and for the movement of workers into cities. Commodity production for the urban market also helps relieve the pressures resulting from the inability of urban industry to meet market demand. Such interaction between urban and rural industries—and the involvement of urban experts as advisers to the newly developing rural industrial and commercial activities—provides further opportunities for urban ideas and knowledge to spread to rural areas. Rural industry is seen as contributing to the creation of urban facilities in rural locations and to the transformation of some commune seats into small towns. Small-town employment in small factories and commercial establishments, coupled with the use of commune income to improve schools, medical, recreation, and business facilities, and roads and other infrastructure, is envisaged as leading both to a higher quality of rural life and to a reduction in the desire to move to cities. These developments are not without their problems: considerable concern has already arisen about (1) the extent to which materials produced in rural workshops match the quality of those produced in the larger urban factories; (2) the availability of adequate energy in rural areas; and (3) pollution of the rural environment.

Evidencing the rapid pace of policy implementation since 1980

and elaborated upon in Document No. 1 at the beginning of 1984 is the report in the *People's Daily* (September 9, 1984) that by the end of June 1984 the total number of towns in China had risen to 5,698, setting, as they put it, "a record figure since liberation." The report goes on to indicate that since release of Document No. 1, 2,900 new towns were established in different places in the country and a total of 10,000 towns is expected by the end of the year. While the report does not indicate the exact process by which this dramatic increase was achieved, the very fact that it is reported testifies to the weight given to small-town development as the direction of future urbanization.

News reports in China indicate that the growing prosperity characterizing many rural areas is revitalizing old Chinese towns. Enterprises in such towns are allowing substantial numbers of the rural labor force to shift from agricultural to nonagricultural employment. Many of them work in the factories and workshops established in small towns while they continue to live in their villages. Some are able to take a factory or service job in the town while concurrently they continue to engage in agriculture under the contract system that is part of the responsibility system. Some work only at their town jobs or in nonagricultural activities in the village, while other members of their household engage in farming or sideline activities. A growing number of rural households throughout China consist of such mixes, giving rise to the label "half worker/half peasant households" (*China Daily*, August 18, 1984). By the end of 1983, industrial township enterprises are reported to have absorbed 32 million farm workers (*China Daily*, August 10, 1984).

As a result of the diversification of economic activities stimulated by small town development and the responsibility system, considerable temporary movement from rural to urban places has evolved. Such circulation has provided still another mechanism for absorbing surplus labor, for transferring capital from urban to rural places, and for satisfying the desires of many peasants to participate in urban life. From the point of view of the rural area, such migration allows the surplus labor to engage in productive activity, and avoid becoming a liability to the brigade or the commune; by going to the city or to another rural area to earn income, the individual is able to contribute to the support of agricultural development through remittances used by the brigade for purchase of machinery, fertilizer, and other items. At the

same time, since such individuals usually go to the city only if they know they can find employment, they are not seen as putting pressure on urban facilities, but rather as providing a desirable function. Nor do they place a burden on the state, since responsibility for their basic food needs and social welfare continues to rest with the commune. All these temporary urban dwellers, as well as the rural labor force engaged in nonagricultural work, are thus considered to be contributing to the modernization of the countryside, and they are also seen as forging links between the countryside and the city and integrating farming, industry, and service activities.

Together, such temporary movement and the job opportunities expected to be provided by rural-based industry and sideline activities in small towns are seen by Chinese policy makers as preventing the surplus rural labor from flooding into the large cities on a permanent basis. Such development is thus regarded as a way of avoiding the experiences of other developing countries, which have been characterized as having led to the mass movement of population into big cities and to the transfer of rural poverty to urban places. In contrast, the Chinese argue that their new agricultural policy and the responsibility system provide the best approach to raising the income level of the rural population, to creating more job opportunities for the anticipated massive increase in surplus rural labor, and to fostering the eventual concentration of commodity production and specialized activities in selected rural areas which have the potential of becoming small urban centers.

While the immediate available evidence points to success in meeting these goals, it is premature to judge whether these changes can operate efficiently on a large enough scale to absorb the millions of surplus agricultural laborers who will need to be absorbed. Moreover, it is not at all clear whether the urban amenities provided in this way will be sufficient to meet the preferences many persons will develop for participation in the consumer society represented by life in the medium-sized or big city. Rising standards of living may well lead to continuously rising levels of aspirations that can be met fully only by permanent residence in a big city. The extent to which changes now in process can substitute for such urban residence need careful monitoring and evaluation; the experiences with current policies and efforts to implement them have obvious implications not only for China's urban structure but also for urbanization in developing countries.

Strongly favoring the growth of small cities and towns as alternates to bigger city growth while also determined to control the growth of big cities, Chinese planners do seem increasingly to recognize the important role that larger cities can play in China's overall development and in the development of both smaller urban places and the rural hinterlands of the big cities. Since the early 1980s, big cities such as Chongqin, Wuhan, and Shanghai have been encouraged to help smaller places by providing technical expertise and financial support and creating local industrial establishments, which may be branch operations of larger firms centered in the cities. Unified planning, designed to exploit and integrate the advantages offered by each of the localities within the region, is intended to rely on the key city as the center and to break the barriers between regions, provinces, departments—both urban and rural—by creating inter-trade and transregional economic zones and networks (*Beijing Review,* 1984). In this way, it is hoped that the large cities will "carry" along the smaller, less developed places in the modernization process. Creation of these networks is not envisaged to increase migration to the big city; rather, the hope is that the greater integration achieved will stimulate the growth rates of smaller urban places and encourage movement to them.

Still one other development testifies to the continuing importance attached to large urban places in China. Reflecting the needs associated with its modernization efforts and the need for technology and foreign exchange, 14 coastal cities in China have been designated economic development zones to join the four special economic zones (SEZs) as centers of foreign business investment. Like the SEZs, the port cities are to be allowed to practice flexible economic policies, including greater control over foreign economic relations and trade and greater power to offer preferential treatment to overseas investors. All of the cities are located in economically developed areas and have relatively solid foundations of industry, science, and technology. Plans call for establishment within the cities of a number of economic and technical development districts where manufacturing, commercial, and scientific facilities will be located, away from existing areas of high urban density. It is not anticipated, however, that this will lead to rural-urban migration; rather, these centers are expected to rely on their own labor supply or on migrants from other urban places in the same general area.

Both the recent policies giving big cities leadership roles in the development of smaller urban places and rural hinterlands and the

policies designating the 14 coastal cities as special centers of economic development clearly indicate that big cities will continue to play a key role in China's modernization process. Inevitably, these policies bring into question whether China can concurrently succeed in its goal of strictly controlling the demographic growth of big cities. Are these policies in contradiction to each other? Success in the efforts to achieve greater development and leadership at the center, especially when this will involve expansion of manufacturing, commercial, and technological activities, would be expected to lead to a demand for more manpower than is available from the resident population. Especially if current migration restrictions are relaxed in the interest of more efficiently matching skills with needs, migration to these cities may take on increased importance. Since both policies involving new roles for selected cities have been introduced since the early 1980s, it is still premature to assess either the success of these efforts or their demographic impact.

It is fortunate that the introduction in 1979 of the responsibility system and the urbanization policies adopted in the 1980s preceded or followed by only a short time the 1982 Census. As a result, the data from the census can provide baseline information on the structure of the urban hierarchy. Such data allow comparisons of the urban and rural populations at a time when efforts were initiated to foster small city and town growth and to absorb surplus rural labor into nonagricultural activities. Using the 1982 data, later surveys and censuses will be able more easily to assess the changes resulting from these policies and to evaluate their success in achieving greater equity both in the spatial population distribution and its access to a better quality of life.

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